CTC Quarterly Bulletin

4th Qtr, FY 99, No. 00-3, MAR 00

"Synchronizing the Brigade Combat Team at the JRTC"

"Wargaming - The DS Battalion

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Techniques and Procedures

FOREWORD

This CTC Quarterly Bulletin focuses on Techniques and Procedures your unit can use, so you have the best chance to "do it right the first time." If the lessons in this bulletin and subsequent CTC Quarterly Bulletins help you avoid making a mistake, then the lessons learned process is working well.

The relevant lessons for the Total Army are there in the field with you. CALL has the mission and the means to share those lessons with the rest of the U. S. Army. This bulletin is one way to do that.

If you or your unit have a "lesson" that could help other units do it right the first time, send it to us. Don't worry about how polished your "article" is. CALL can take care of the editing, format and layout. We just want the raw material that can be packaged, and then shared with everyone.

So take the time to put your good ideas on paper and then get them to CALL. We'll acknowledge receipt and then work with you to put your material in publishable form. It may show up in *News From the Front!,* a bimonthly publication, or in the *CTC Quarterly Bulletin.* Select material will also be put "on line" in *Training Techniques,* a new publication on the CALL Home Page.
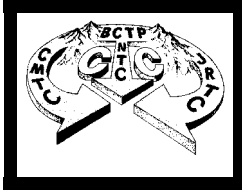
You can **fax** your material to **DSN 552-9583/Coml (913) 684-9583, ATTN: Mr. Rick Bogdan, Military Analyst.**

Combat Training Center (CTC) *"HOW TO"* Video Tapes

CALL is distributing CTC-produced "How To" tapes at no cost. These are standard VHS video cassettes. As subsequent tapes are released by the CTCs, CALL will distribute them. In future publications, we will update the list of available tapes. You can order these tapes as you would any CALL publication, *BUT* the videos will be issued on a unit, not individual, basis. As with any product CALL produces, we highly encourage local reproduction of these tapes. The video tapes are also available for viewing on the CALL Website (http://call.army.mil).

Is Your Unit Looking for Operations Orders to Facilitate Practicing the MDMP? Well, *Look No Further!*

Recent trends from JRTC, NTC, and CMTC reveal that units typically experience problems with the Military Decision-Making Process (MDMP). Brigades often do not have the opportunity to exercise their staff planning process as often as necessary while at home station. CALL has received permission from NTC and JRTC to disseminate, upon request, Division-level operation orders. The orders are designed to be used by a Brigade Headquarters to train a portion of, or the entire, MDMP. They can also be used to facilitate unit CPXs, simulation exercises, or OPDs.

**Combat Training Center (CTC)
Quarterly Bulletin
4QFY99**

CALL has many products of interest to the Total Force. A partial listing may be found at the back of this publication. We invite you to visit our web site at:

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The intent of CALL publications is to share knowledge, support discussion and impart lessons and information in an expeditious manner. This CALL publication is not a doctrinal product. The tactics, techniques and procedures (TTP) observed and reported in this publication are written by soldiers for soldiers. If you have, or your unit has, identified other relevant TTP for the U.S. Army, contact the Managing Editor, Mr. Rick Bogdan, at Coml (913) 684-9581or DSN 552-9581; FAX DSN 552-9583; e-mail: <bogdanr@leavenworth.army.mil>. Articles must be submitted in either Word Perfect or Word format. Graphs, slides and clipart must be submitted separately from the document in either ppt, pcx or wpg format.

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Unless otherwise stated, whenever the masculine or feminine gender is used, both are intended.

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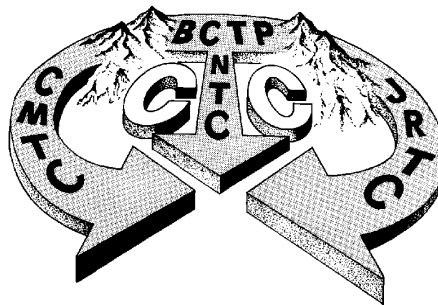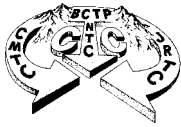
Orchestrating the Direct Fire Fight

by MAJ Jay Allen and MAJ Mike Albertson

> *"The rarest thing in all battle is fires in good volume, accurately delivered and steadily maintained."*
>
> **--SLA Marshall**

THE PROBLEM:

Observer/Controllers (O/Cs) at the National Training Center (NTC) continue to record direct fire planning and execution as an area that needs emphasis. Direct fire planning and execution have been recorded as a general weakness, almost continuously, since trends have been collected by the Center for Army Lessons Learned (CALL).[1]

A RAND study was published in 1997 titled, *"Company Performance at the National Training Center."* The study covered NTC rotations over a period of one year, and included "330 battles involving 74 companies." In that study, the first of five conclusions state, *"Overall execution performance, especially direct fire control, is poor."*[2]

The Training and Doctrine Command (TRADOC)'s Trends Reversal Program, which is a framework to reverse systematic negative trends that emerge at the Combat Training Centers (CTCs), identified "Direct Fire Planning" in April 1999 as one of several areas that requires continued improvement.

DISCUSSION:

1. During the "live fire defense" of a typical NTC rotation, a common oversight most units have during the planning phase of an upcoming direct fire fight is that the fires are not distributed to achieve mass. NTC O/Cs have a popular saying: "Massing of direct fires is not 14 vehicles all destroying one target. True massing of fires is 14 vehicles destroying 14 different targets." During the defensive phase of a live-fire exercise conducted during an NTC rotation, a unit will conduct a day defensive mission, followed by an O/C-delivered after-action review (AAR), whereby the strengths or weaknesses of the mission will be discovered. Immediately following that AAR, the unit will prepare to re-fight their defensive mission that night, incorporating the lessons from the day's live-fire defense. Understandably, units are consistently much more successful during the second live-fire defense.

2. One technique that has proven to be effective, and one that is taught by O/Cs during the first AAR, is to "script" the upcoming battle to ensure direct fires are evenly distributed throughout the depth of the engagement area, and that the effects of all direct fire assets are synchronized to effectively disrupt the enemy attack. Units are taught how to envision the effects that their direct fire weapon systems, both cumulative and simultaneous, will have on enemy formations. This may seem simple, and, for the most part, it is common sense tied to some effective techniques coupled with a thorough knowledge of both enemy and friendly weapon systems. The shortcoming in most fire plans is that they are overlooked at the company team level during the planning and preparation phase of mission accomplishment. To effectively script the battle, units must first gain an appreciation of the principles of fire control.

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[1] **Center for Army Lessons Learned (CALL) Newsletters No. 99-1,** *NTC Trends Compendium,* Jan 99, pgs 28-30, and **No. 99-10,** *NTC Trends,* **"Direct Fire Planning,"** pgs 101-102 (Fort Leavenworth, KS).

[2] Hallmark, Bryan W., and Crowley, James C., ***Company Performance at the National Training Center: Battle Staff and Execution,*** pg 46 (Santa Monica, CA: RAND's Arroyo Center, 1997).
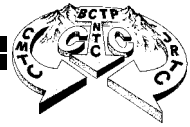
PRINCIPLES OF DIRECT FIRE CONTROL

The following principles apply equally to both offensive and defensive close combat operations:

Mass - To concentrate, or bring together fires and mass the effects of multiple weapons or units. (Also a principle of war). Understanding the principle of mass is critical to plan development. Planners and commanders must understand how to maneuver to mass overwhelming fires on enemy forces. For purposes of direct fire planning, mass is not merely defined as having units close in proximity to each other. More accurately, mass is portrayed with the effects achieved by weapon systems, at that place, in time and space, where the commander desires to destroy an enemy force.
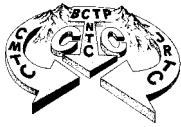
Control - Actions or procedures taken by commanders and leaders to execute fires at initial contact and during sustained engagements. Controls should be used to obtain the desired volume and sustainment of fires. Controls affect sustainment of fires, such as directing controlled bursts of two to three rounds or five to tens rounds. Controls also influence the volume of fire and can be used to economize ammunition usage. At platoon, company, battalion, and even brigade levels, leaders are responsible for controlling the fires of their vehicles and integrating the fire support systems and close air support assigned to their unit's area of operation. Leaders must position themselves forward to direct the battle their soldiers fight. To ensure mission success, leaders must plan and rehearse their role in conjunction with the unit's fire plan.

Fire Distribution - The relationship of positioning combat power to achieve a desired outcome against an enemy position, formation, or unit. Fire distribution is also a characteristic of the direct fire plan and should be addressed in the unit rehearsal. To achieve distributed weapons effects on an enemy formation, units must coordinate with adjacent units within a command and integrate all available fires, assigning clear engagement criteria, and prioritizing which targets should be destroyed first.

Shifting of Fires - The command to move the concentration and the effects of fires away from friendly maneuver forces to continue suppressing and destroying enemy formations. This technique is used to prevent endangering friendly forces, and is a characteristic of offensive direct fire plans. This is critical to the planning and execution of fire control to deny enemy freedom of action while maintaining the initiative to influence events. The key to shifting fires is that they must be planned, rehearsed and absolutely understood by everyone in the unit with a quick and concise method of confirmation understood by the unit.

Concentration of Fires - A well-defined area or enemy unit, on which all available fires are executed, within a specified time, to produce a desired outcome. An example would be a battalion that has maneuvered direct fire systems into both support-by-fire and attack-by-fire positions. Additionally, fire support systems are firing in support of the battalion, thereby achieving a battalion concentration of fires on an enemy position.

Rehearsals - The process of practicing a plan before execution. Standing operating procedures (SOPs) should be in place and well trained so that each soldier knows his role in a fight. A plan and rehearsal should capitalize on battle drills for contact with the enemy forces. Each leader and each soldier should understand, without hesitation, his role in virtually any circumstance in which a unit may find itself. Rehearsals done well have a positive impact on a unit's ability to destroy the enemy when contact is made.

FIRE PLANNING CONSIDERATIONS

"The enemy however, committed the great mistake of not surveying the terrain in front of his position." **--Erwin Rommel, "*The Rommel Papers*"**

Key direct fire planning considerations:

☛ Conduct thorough Intelligence Preparation of the Battlefield (IPB) and reconnaissance to determine where the enemy is most vulnerable in order to mass fires on that location.

☛ **Understand weapons systems and ammunition characteristics.** These two variables can directly influence enemy standoff (his effective/maximum range greater than our effective/maximum range). They also can directly impact unit and weapon system emplacement.

☛ **Understand the terrain.** This understanding is derived from a marriage of the IPB, ground/leader reconnaissance, friendly and enemy weapons system characteristics, and maneuver task and purpose. Leaders take the information on the IPB and reconnaissance and develop a more refined plan based on:

   ● **How the terrain will affect enemy fires and moves.**
   ● **How our weapons and units will destroy the enemy based on our positioning of vehicles.**
   ● **What aspects of the terrain aid or mask our fires based on our weapons positioning and characteristics.**
   ● **Whether or not we must reposition or can accomplish our higher headquarter's intent.**

We then build an engagement area and position our units based on unit SOP and related FMs.

☛ **Analyze and identify enemy weapons capabilities through IPB and reconnaissance to know:**

   ● **When to trigger fire support and close air support (CAS) to allow freedom of maneuver over enemy capabilities in the offense.**
   ● **When and where to concentrate all mass fires in the defense to quickly destroy enemy formations.**

☛ **Designate control measures to initiate fires, shift fires, mass fires, and disengage fires.**

☛ **Assign primary, alternate, and supplementary fighting positions to gain and retain the initiative.**

☛ **Require range cards, sector sketches, direct and indirect fire plans to ensure subordinate leaders understand the plan for fires, and proper fire distribution and integration have been accomplished.**

☛ **Conduct rehearsals to ensure subordinates two levels down understand the sequencing of the battle and are aware of any refinements to the plan.**

☛ **Ensure the fire support plan is integrated into the maneuver plan along with CAS.** Ensure that execution of CAS does not cancel critical call for fire missions. (For further study on this issue, refer to **CALL Newsletter 98-13,** Jul 98, *Close Air Support*, which addresses altitude deconfliction techniques that will allow for simultaneous CAS and indirect artillery missions.)

☛ **At higher echelons, be cognizant of positioning combat multipliers within surface danger zones of all direct fire systems and munitions.** For example, commanders at all levels must know where brigade scouts and colt teams will be positioned in relation to the surface danger zone of M1A1 battle positions.

Scripting the Battle for the Defense

The RAND study that states execution of direct fire control is poor also states units need to "improve doctrinal coverage of company-level direct fire control and specific skills required for effective battlefield visualization."[3] **Battlefield visualization is key.** Rehearsals and wargames are well known planning tools that can reveal timing misconceptions and uncover possible enemy responses, allowing leaders to see beyond the expected. As enemy action is anticipated, direct fire plans can be designed to guarantee his complete destruction. When describing the reason for his success over his opponents, the German General Erwin Rommel said, "I see further ahead than they do."[4] The technique of scripting the battle, described below, can aid and assist company commanders design and execute a very lethal direct fire plan. **To destroy a target, it must be seen.**
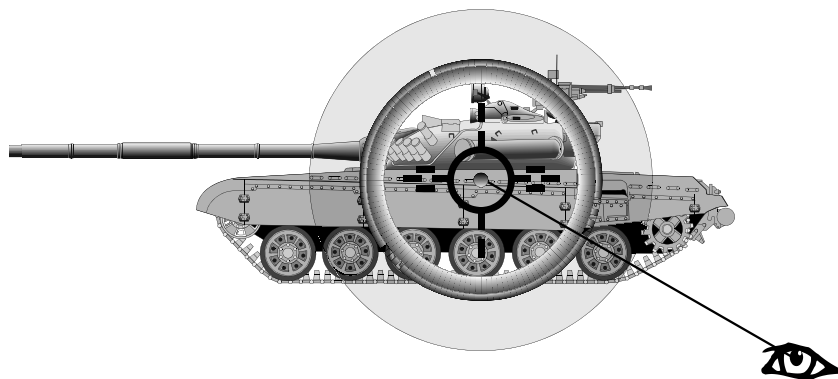

Scripting the battle requires a vision of how the enemy is most likely to attack. The opposing forces (OPFOR) at the NTC fights in accordance with doctrine established by **TRADOC Pamphlet 350-16,** *Heavy Opposing Force (OPFOR) Tactical Handbook.* Heavy, armored OPFOR tactics are, for the most part, still derived from old doctrine of the former Soviet Union. The standard Krasnovian armored formation, because it is a well-established threat, provides a realistic tool for exercising the IPB process. The equipment is known and prevalent, and the doctrine provides the staff officer with an existing data base for analysis. The OPFOR at the NTC stresses the concepts of speed and mass to quickly overwhelm defending forces situated at the point of penetration, and then to quickly unhinge the rest of the defensive positions by destroying the brain, or the tactical operation centers, that provide command and control, as well as key logistic nodes. A significant event for the OPFOR is to turn off the logistical lifeblood of deployed mechanized forces. After smashing through initial battle positions, the OPFOR at the NTC penetrates deep into enemy territory with all available maneuver assets. The defenders may have an initial tactical advantage in the choice of terrain and time they have had to prepare defenses, but OPFOR doctrine believes that the attacker can seize the initiative and impose his will on the defender.

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[3] Hallmark, Bryan W., and Crowley, James C., *Company Performance at the National Training Center: Battle Staff and Execution* (Santa Monica, CA: RAND's Arroyo Center, 1997), p. 62.

[4] Irving, David, *On the Trail of the Fox* (New York: Avon Books, 1980), p. 186.
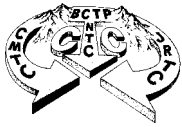
Visualize the Enemy
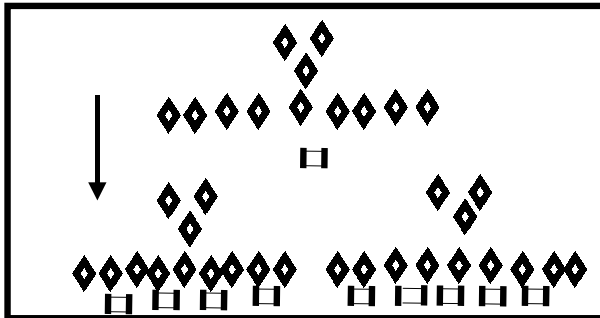
At company level, the commander must portray what the enemy will look like as he enters the engagement area (EA). This needs to be addressed in paragraph one of the company operations order (OPORD) when describing the enemy situation. For a company team defense, for example, a motorized rifle battalion may attack along a front or flank. The picture at the left illustrates what it would look like if the enemy attacked with all three companies in the first echelon, reinforcing platoon in reserve. The mission for the reserve platoon is to exploit any penetration that is achieved.
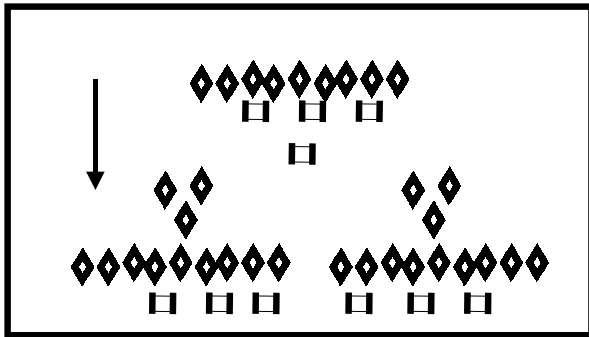
Another option for the enemy motorized rifle battalion is to attack with all tanks and two motor rifle companies in the first echelon. That leaves one motor rifle company in the second echelon as the picture at the left illustrates:
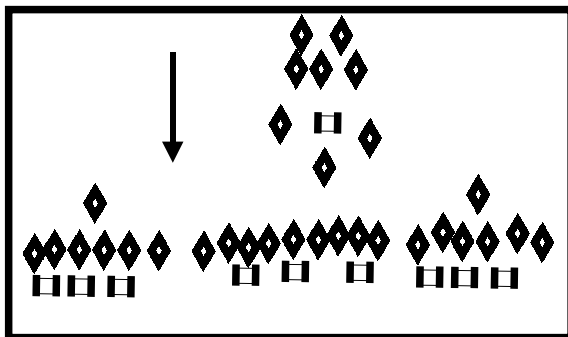
A third option available to the enemy is to attack with two tank platoons and two motor rifle companies in the first echelon, leaving the remainder in the second echelon, as shown at the left:

Commanders must do a thorough IPB and visually depict the possibilities during the operation order. If this visual image of what the enemy will resemble in the engagement area (EA) can be articulated to all the soldiers in the unit, success is assured.
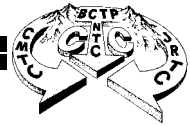
For illustrative purposes, let's say the armored company commander expects an enemy force the size of a motorized rifle battalion (MRB) at the point where he intends to mass fires (referred to as the decisive point). The commander must conduct "battlefield calculus" to determine force ratios at this decisive point. For our example, each of the Krasnovian MRBs consists of 36 BMPs and 10 tanks, or 46 total combat vehicles.

First variable: Forty-six enemy vehicles to be destroyed by one armored company team.

Again for our example, the friendly battalion has two major avenues of approach (AOAs) to defend. But the terrain will allow the unit to shift fires from one AOA to another. The battalion, consisting of 30 tanks and 28 infantry fighting vehicles, is broken down into a task force of two tank companies and two Bradley companies. Realistically, for illustrative purposes, maintenance and attrition have left the battalion with a total of 25 tanks, and 25 Bradley M2s for the fight, or a total of 50 primary combat vehicles. Our armored company team in this example will have 10 tanks and 4 M2s.

Second variable: Ten tanks and four Bradleys in our armored company team.

The brigade combat team and the battalion task force, in this example, have shaped the battlefield so that the enemy formation can only attack into one AOA with one MRB at a time.

Third variable: One AOA.

We know that for most open terrain, a mechanized force moves at a rate of one kilometer for every three minutes.

Fourth variable: Enemy moves at one kilometer every three minutes.

Another variable we consider is how long it takes to call for fire. No statistical data is available to support a planning factor because of variations in the proficiency of units, their call for fire system, and their gun crews, and the availability of fire support at the time it is requested. Nevertheless, a reasonable planning factor based on timing observed in live fire at the NTC is approximately seven to ten minutes for preplanned targets.

Fifth variable: Length of time to call for fires is seven to ten minutes.

For the direct fire fight, a commander must take into consideration both weapons and ammunition capabilities and characteristics, as well as crew proficiency, to determine a probability of kill per round fired. Fort Knox has published an unofficial probability of kill or "PK" chart used for training purposes only.

Sixth variable: PK per round fired is identified.

From all this information a commander can begin to script his battle and determine an outcome of enemy destruction. He can forecast ammunition consumption and predict when critical shortages may arise. He can also weigh his effort if he determines a need.

As the commander scripts the upcoming battle, he determines how he wants to begin engaging and destroying the enemy with fire support systems, possibly including CAS. To facilitate this, he must emplace target reference points (TRPs) along phase lines that determine a field artillery trigger line.
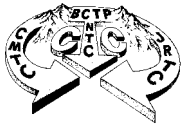
☛ **Experience shows that the triggers should be emplaced approximately four kilometers from where the commander wants to engage enemy forces with artillery fire.** If enemy rate of movement is one kilometer every three minutes, and it takes ten minutes to call for fire, then fire missions need to be requested when the enemy is approximately four kilometers from the decisive point.

☛ **Another required TRP, which indicates another trigger and phase line, is the point on the ground where the indirect will land among enemy lead forces.**

● **At this second point, the commander determines what system he will use to begin his direct fire battle.** Normally, for most task forces, the M2 TOW system has the highest PK beyond 3,000 meters. Because of this, the company commander should set the initial direct fire TRP on an AOA approximately 3,500 meters from his unit.

● **The company commander will determine how many Bradley Infantry Fighting Vehicles (BIFVs) will be required to reach a desired end state.** For planning estimates, a typical BIFV platoon can effectively engage three to four at this initial direct fire TRP. We base this on PK from Fort Benning data which estimates a 50-percent PK at range 3,000-3,500 meters. Again, this is dependant on crew proficiency. Identification of the desired end state is crucial as the upcoming battle is scripted. For example, at this TRP, a desired end state could be to destroy any enemy combat reconnaissance patrols that are observed entering the EA, or quickly singling out and destroying any command vehicles that are seen in lead echelons of enemy formations that enter the EA (these can be distinguished by the number of antennas).

☛ **The commander can now begin keeping a running total of enemy vehicle destruction and the consumption of ammunition that is required.** For example, if eight TOW rounds are fired, and they have a 50-percent PK rate, that equates to four enemy vehicles that are disabled or destroyed (remember each M2 has two TOWS ready to fire). The picture on page 8 depicts lead elements of the first MRB having crossed the artillery trigger and beginning to enter the initial direct fire trigger at 3500 meters from our defensive battle position. This trigger launches the long-range TOW fires.

ENGAGE WITH TOW MISSILES

PL FRISCO
ARTY TRIGGER
5000-6000 M

PL RENO
TOW TRIGGER
3500 M (SERVICE)
2500 M (PRACTICE)

TRP 4

TRP 1

TRP 2

TRP 3

WR2003

1500-1800 M

BLUE PLT
RED PLT
WHITE PLT

BFV PLT ENGAGES WITH 2
TOW/VEHICLES (8 TOTAL).
(EXPECT TO KILL 4 ENEMY
VEHICLES.)

— ARTY SUPPRESSES AND DISRUPTS ENEMY FORMATION
  PLAN ENGAGEMENT PRIORITY/CRITERIA AT EACH TRIGGER LINE
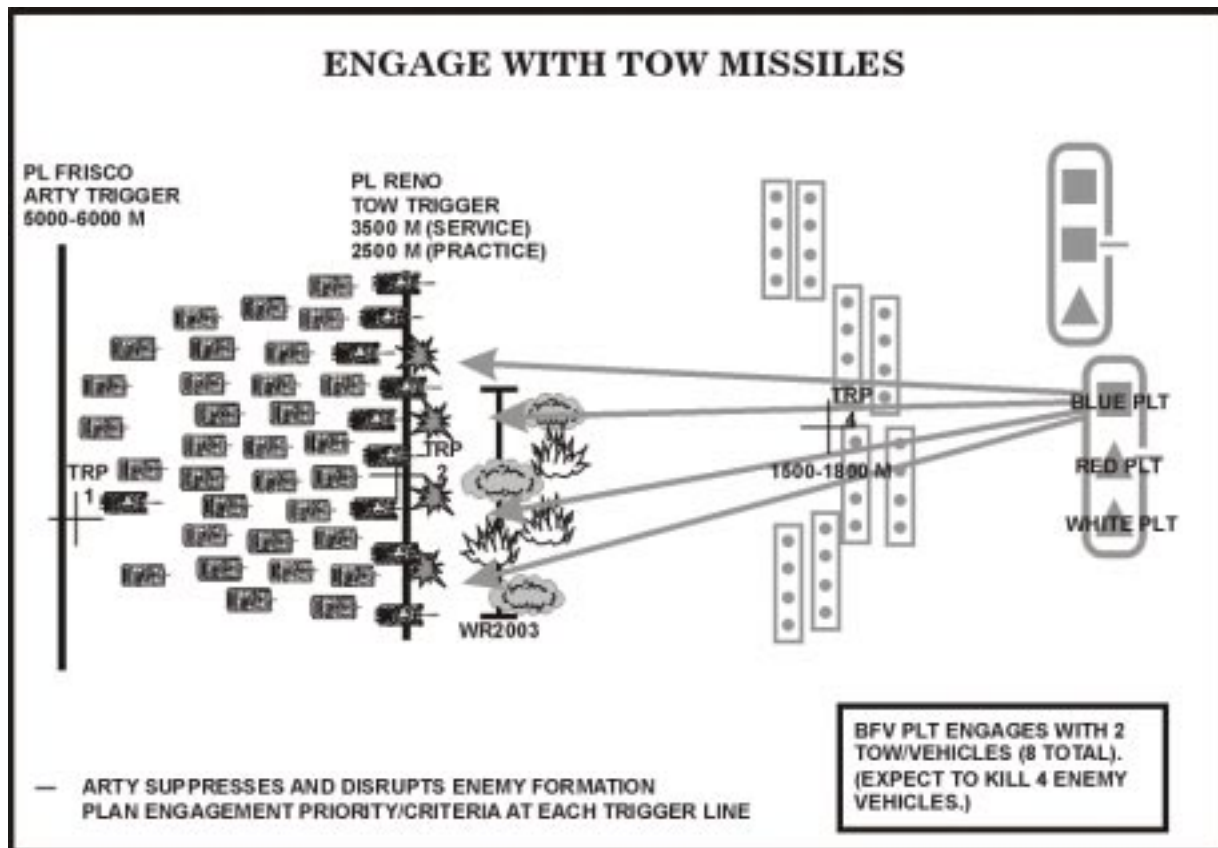
Our attached BIFV platoon fires eight missiles, effectively destroying four enemy vehicles. The enemy has 42 vehicles remaining. (The commander can have the whole platoon reload missiles simultaneously, or can direct a portion to switch to 25mm while the remainder reload missiles.)

The company is now ready to script the long-range fires of their tanks. According to observations at the NTC and Fort Knox, long-range M1A1 fire for experienced, distinguished rated crews is between 2,500-3,200m, depending on crew proficiency. For this example, let's establish PK at 50- to 65-percent at the 2,200-meter range. As a result, the commander will designate another TRP, phase line trigger just for long-range tank fires, and give specific guidance to subordinate units that only long-range, or "sniper tanks" will be allowed to fire at this range. The commander then will give specific guidance on the engagement criteria, and identify the priority and number of rounds to be fired. A tank company team will normally have two to three such shooters. The commander should designate the shooters and give specific guidance. When the enemy approaches the trigger, the leaders will give fire commands to the designated long-range shooters.

In our example, our company has four long-range shooters, and the commander specifies three rounds of sabot for initial engagement. At 50- to 65-percent PK, the commander expects to kill about seven enemy vehicles with 12 rounds of sabot.

ENGAGE WITH SNIPER TANKS

PL FRISCO
ARTY TRIGGER
5000-6000 M

PL RENO
TOW TRIGGER
3500 M (SERVICE)
2500 M (PRACTICE)

PL CHEYENNE
SNIPER TRIGGER
2200M

TRP 1

TRP 2

TRP 3

TRP 4

1500-1800 M

BLUE PLT

RED PLT

WHITE PLT

WR2003

— PLAN ENGAGEMENT PRIORITY/CRITERIA AT EACH
TRIGGER LINE

SNIPER TANKS ENGAGE WITH
3 RDS EACH (12 TOTAL).
(EXPECT TO KILL 7 ENEMY
VEHICLES.)
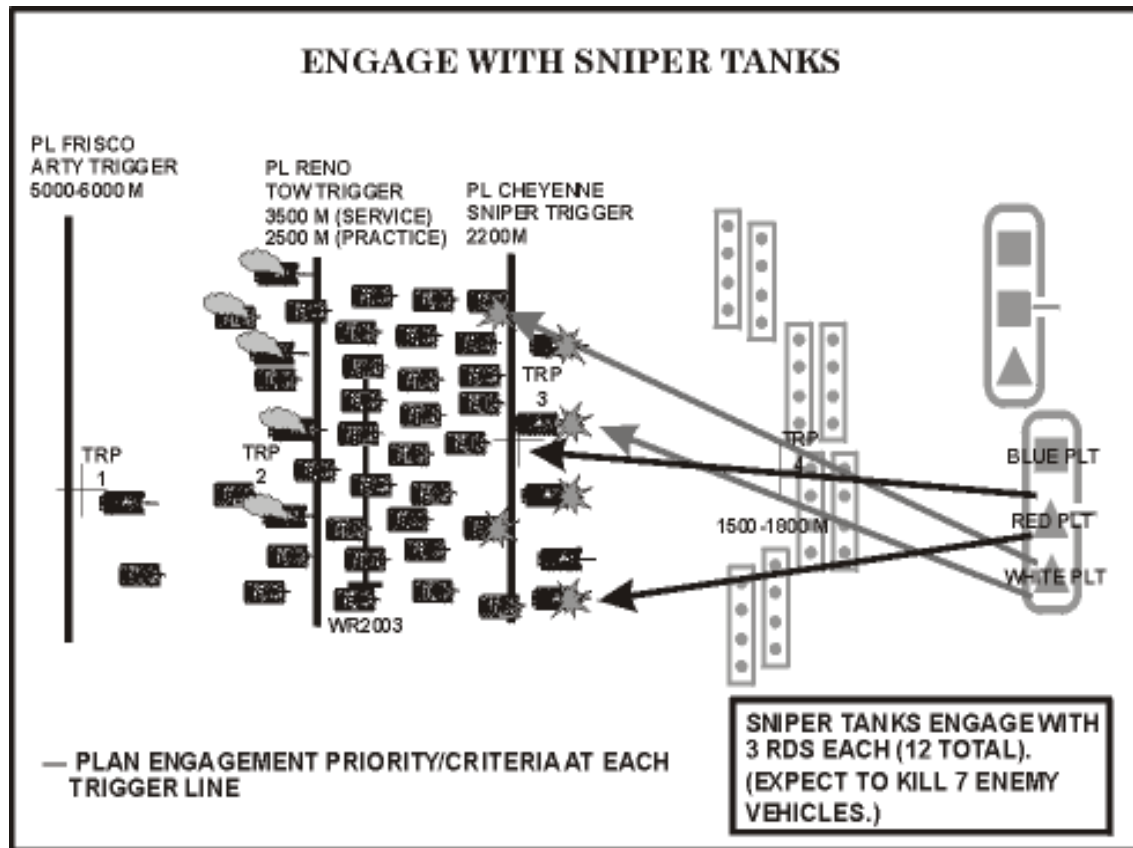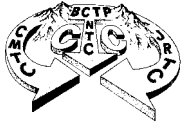
Our sniper tanks fire 12 sabot, effectively destroying seven enemy vehicles. The enemy has 35 vehicles remaining.

At this point, the enemy would probably stop marching, set AT-5 firing lines, and call for fire support to engage us. Now our commander has a decision to make: whether to continue firing in depth with TOWs and long-range fires, or to distribute all his fires at his decisive point. This decision is based largely on how the enemy is maneuvering and what effect our fires have had. Some thought should be given throughout this methodology to increasing the probability of kill, with combat multipliers such as obstacles. The effect of obstacles on enemy maneuver is critical, and their importance cannot be understated.

The company commander must now concentrate his effort of scripting the battle for his engagement area around his decisive point. Normally, the effective fire of a company team is at ranges of 1,500 to 2,400 meters. The individual gunnery range tables are from 1,200 to 2,100 meters. The commander sets his unit's TRPs to maximize fire distribution and control of his units fires. The commander incorporates a company team volley fire into his engagement area and battle position development. He scripts his battle to open his fires at enemy first echelon forces at about 1,800 meters based on an expected PK of 65 to 70percent. The BIFV platoon will fire 16 missiles throughout the depth of the enemy's formation. The battle position should be designed so that the remaining 10 tanks can fire into the enemy flanks at as much of an oblique angle as possible. In the example pictured below, the commander will designate a company volley fire of three rounds per tank and two rounds per M2.

9

COMPANY/TEAM VOLLEY

PLAN ENGAGEMENT PRIORITY/CRITERIA AT EACH TRIGGER LINE
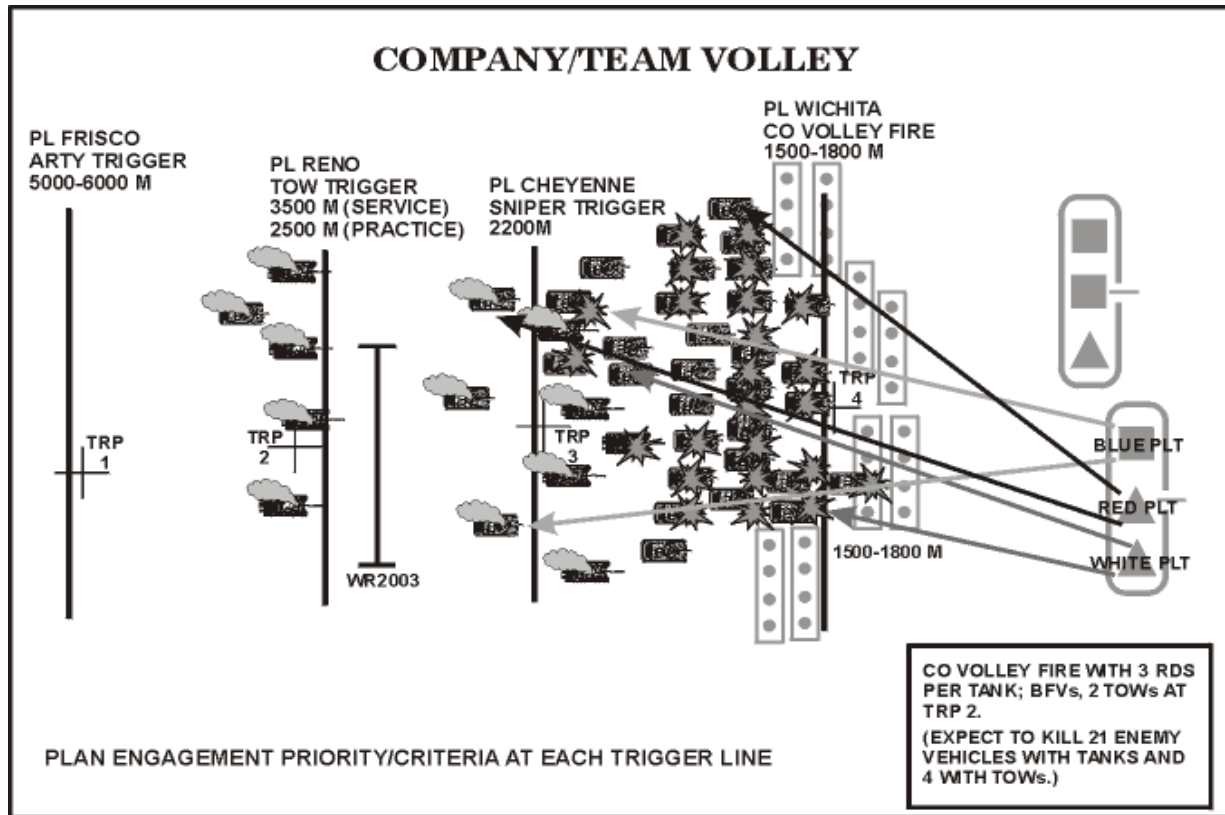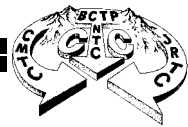
Our tanks destroy 21 enemy vehicles and our TOWs destroy an additional four enemy vehicles. The enemy has 10 vehicles remaining.

Out of 46 original vehicles in the MRB, now only 10 remain. Up to 24 enemy vehicles could remain if the enemy MRB is reinforced with an AT platoon and engineers. The battle is now a platoon fight, and it should be scripted as a platoon fight. Three good company volley fires is really all that a company can expect against a MRB. If the commander's track is rendered inoperable, the XO or next platoon leader in line needs to assume command. This drill must be rehearsed.

PLATOON VOLLEY

PL FRISCO
ARTY TRIGGER
5000-6000 M

PL RENO
TOW TRIGGER
3500 M (SERVICE)
2500 M (PRACTICE)

PL CHEYENNE
SNIPER TRIGGER
2200M

PL WICHITA
CO VOLLEY FIRE
1500-1800 M

PL MEMPHIS
PLT VOLLEY FIRE
1000-1200 M

TRP 1
TRP 2
TRP 3
TRP 4
TRP 5
TRP 6
TRP 7
1500-1800 M

WR2003

BLUE PLT
RED PLT
WHITE PLT

PLT VOLLEY FIRE TO COMPLETE
ENEMY DESTRUCTION.
(EXPECT TO KILL 24 ENEMY VEHs
WITH TANKS AND 10 WITH BFVs.)

CROSS-LEVEL AMMO AND PREPARE
FOR THE SECOND ECHELON MRB.

PLAN ENGAGEMENT PRIORITY/CRITERIA AT EACH TRIGGER LINE

Script the platoon volley fire complete enemy destruction in our Engagement Area.

The company's next step is to reconsolidate and prepare for the second echelon.

This outline has been written as a basis, or methodology, for thinking about direct fire planning in the defense. It is a great tool for a commander to "script" an upcoming battle. The methodology assists the commander in identifying decision points based on enemy and friendly actions, and it allows the company to anticipate actions such as shifting fires, moving between positions, and rearming parts or all of its forces.

The variables that were discussed in this article for "scripting" the defensive direct fire battle are listed again below:

- **Enemy MRB = 46 combat vehicles.**
- **Company Team = 10 M1A1s and 4 M2s.**
- **One Avenue of Approach (AA).**
- **Enemy march rate = 1 kilometer per 3 minutes.**
- **Expect 7-10 minutes to call for indirect artillery to impact.**
- **Training PK/Crew proficiency identified.**
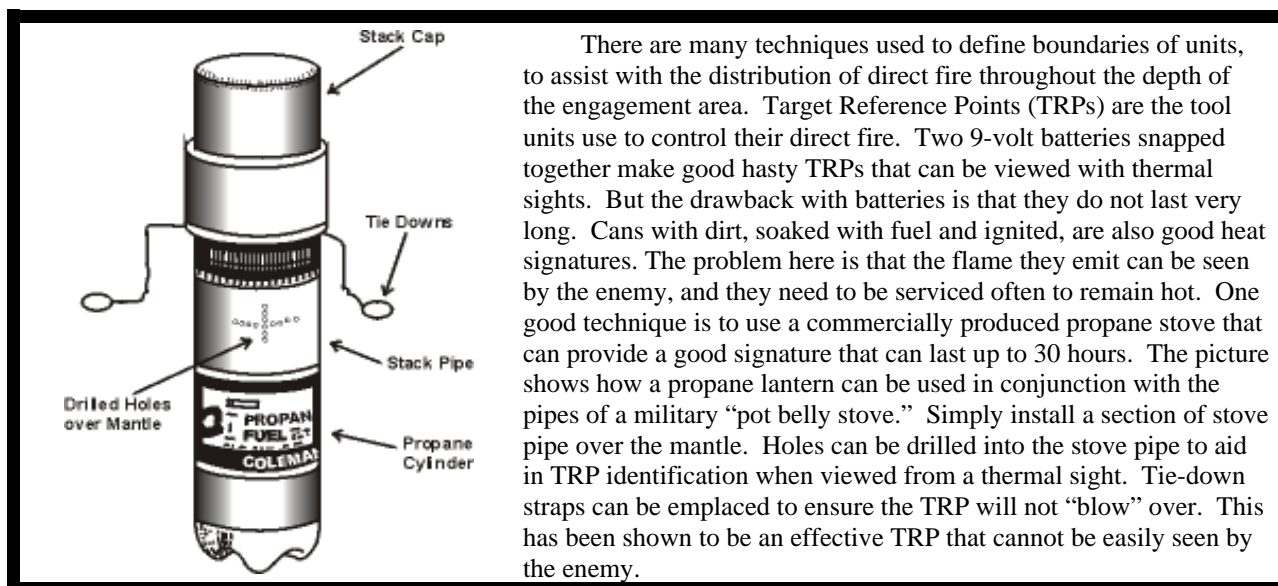
There are many techniques used to define boundaries of units, to assist with the distribution of direct fire throughout the depth of the engagement area. Target Reference Points (TRPs) are the tool units use to control their direct fire. Two 9-volt batteries snapped together make good hasty TRPs that can be viewed with thermal sights. But the drawback with batteries is that they do not last very long. Cans with dirt, soaked with fuel and ignited, are also good heat signatures. The problem here is that the flame they emit can be seen by the enemy, and they need to be serviced often to remain hot. One good technique is to use a commercially produced propane stove that can provide a good signature that can last up to 30 hours. The picture shows how a propane lantern can be used in conjunction with the pipes of a military "pot belly stove." Simply install a section of stove pipe over the mantle. Holes can be drilled into the stove pipe to aid in TRP identification when viewed from a thermal sight. Tie-down straps can be emplaced to ensure the TRP will not "blow" over. This has been shown to be an effective TRP that cannot be easily seen by the enemy.

OFFENSIVE CONSIDERATIONS FOR DIRECT FIRE PLANNING

"I think, if we should say that 'fire is the Queen of Battles,' we should avoid arm arguments and come nearer telling the truth. Battles are won by fire and movement. The purpose of movement is to get the fire in a more advantageous place to play on the enemy. This is from the rear or flank."
--George S. Patton Jr., *War as I knew It*

In March 1998, the CALL published a **Special Study,** *Closing with the Enemy; Company Team Maneuver.* In that publication, tactics, techniques, and procedures (TTPs) for offensive operations are addressed in detail. As with defensive direct fire planning, the key to the offensive direct fire planning is visualizing the enemy through an effective IPB. Just as important are effective and well-established battle drills and unit SOPs. Leaders must be aware of known and suspected enemy positions as their unit moves. Integral to this is enemy weapon systems and capability. Weapon ranges, and their effects against unit vehicles and equipment can be the difference between life and death. Templating enemy positions and overlaying enemy range fans will allow the unit leader to develop and visualize how the enemy commander intends to fight. Maneuvering to where the enemy is expected to be strongest is not a smart way to attack. By developing the enemy situation, the unit can determine a probable line of deployment, and begin to maneuver while triggering suppression and obscuring fires. Movement can occur only if there are accurate and effective suppressive fires. Without suppression, the unit will find it very difficult to
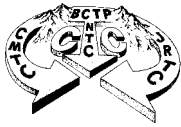
tactically move into the support-and-attack-by-fire positions. In fact, this is where many battalion task force deliberate attacks disintegrate.

At this point the principles of suppress, obscure, secure, and reduce (SOSR) must be put into effect. As an offensive direct fire plan is scripted, the unit direct fire suppression, breach, and assault drills must be perfected. Whether attacking by fire, supporting by fire, conducting actions on contact or firing while in a moving formation, the unit leader still must distribute his fire. He can do this with pre-determined sectors of fire that are redundant, in that they are designed to take into account the probable loss of elements in the unit. Also, the hasty establishment of TRPs with direct fires, pyrotechnics, and or indirect fires is critical. From here the unit commander can issue fire commands in accordance with FM 17-12-1/2 and FM 23-1 to distribute his fires and destroy enemy positions and vehicles.

> *"Fortune favors the prepared man"* --
> **Machiavelli.**

Offensive direct fire principles must be part of a unit's SOP. Through numerous iterations of realistic training, battle drills must be rehearsed to the point of being second nature to squads and crews. No methodology can work effectively if it is used for the first time during execution. The commander must impart a visual picture of each technique in the mind of each soldier. Difficult situations can be overcome if each soldier has an accurate picture in his mind of the direct fire plan, his role in that plan, and the fires that will be distributed and sustained over time. Each tank and Bradley should immediately scan and return fire according to a prearranged scripted battle plan or unit SOP, rather than spend critical time trying to figure out where to orient fires. By establishing a well-rehearsed and redundant direct fire plan for the offense, every unit will increase their warfighting proficiency.✪
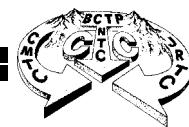
SYNCHRONIZING THE BRIGADE COMBAT TEAM AT THE JRTC

**by COL Scott Pritchett, Senior Brigade Command and Control O/C, and
LTC Steve Hawley, Brigade Operations O/C**

> *"I announced the imminent offensive to the units and accordingly explained my thoughts and my battle plan to the commanders of the…battalions and in part to company commanders on the spot in daily briefings. As a result of these…talks, the unit leaders…were briefed thoroughly. I make the point of emphasizing this because the interaction of all weapons and supporting units functioned in such an exemplary manner; the only other place one could find an example of such cooperation would be in textbooks."*
>
> **--Generalleutnant Hasso von Manteuffel, Battle of Targul-Frumos, Russian Front, May 1944**

Today's and tomorrow's technology affords our Army the capabilities and allows us the opportunities to dominate our adversaries with overwhelming combat power. No longer is the challenge to synchronize combat power limited to just orchestrating the seven Battlefield Operating Systems (BOSs). A host of new combat multipliers, concepts and capabilities, coupled with a wide spectrum of Army missions have made synchronization a much more sophisticated challenge. Experiences at the Joint Readiness Training Center (JRTC) are indicative of how well we are meeting it.

Unfortunately, the diagnosis is not good. Commanders' and staffs' training at the JRTC do not demonstrate a suitable level of understanding or proficiency with synchronization, the impact of which is that we concede far too many tactical successes to the opposing force due solely to a lack of synchronization. That is, we struggle to out-think the enemy and, thus, to bring the right combination of combat power to the right places at the right times. In short, we don't beat him as often as we can and should. Some of the most significant obstacles are rooted in the brigade's inability to develop synchronized plans. Not surprisingly, this fact lends itself toward weak synchronization in execution. In particular, the JRTC spotlights a trend in commanders of not fully exercising their role in the Military Decision-Making Process (MDMP) to structure and drive synchronization. Likewise, staff officers with even less experience than the commander are similarly challenged to synchronize operations which are founded upon an ineffective MDMP.

Repeated Observer/Controller (O/C) observations indicate that the challenge to synchronize lies within three general areas. In this regard, we first want to examine the intelligence operating system and the absolute necessity of developing and maintaining an integrated threat picture as the foundation of synchronization. Second, we will discuss the contributions the staff must make -- contributions that are vitally important to planning, coordinating, integrating and executing synchronization. Finally, we will discuss the brigade commander's responsibilities and ways he can improve building synchronization into plans so as to increase the chances of synchronization in execution. While the trends discussed are born out of the training experiences of light, airborne, and air assault brigades, and the Ranger Regiment at the JRTC, the points made are also appropriate to these kinds of battalions as well as the corresponding levels of command and staffs in heavy units. Throughout the presentation, readers should note a particular sharing, if not a redundancy, of the trends, analysis, impact and the fixes suggested. This fact serves to emphasize that our *synchronization doctrine is founded upon all elements working in common toward a well-articulated and common objective.*
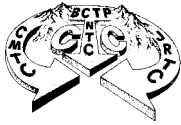
I. THE S-2 AND SYNCHRONIZATION

> *"In fact, until the morning of the day of the attack, I had no idea where the focal point of the Russian attack was likely to be. The success of my battle plan depended on the accurate transmission of information obtained through reconnaissance and its transmission to the entire (unit)."*
>
> **--Generalleutnant Hasso von Manteuffel, Battle of Targul-Frumos, Russian Front, May 1944**

The brigade intelligence officer/S-2 has a key staff role in setting the conditions for the brigade to achieve synchronization. Three areas of responsibility include developing and maintaining an integrated threat picture based on battlefield indicators, concisely and coherently communicating the analysis to the commander, and using an event template. The intelligence officer, therefore, must be an intelligence integrator. He and his staff must be attuned to the current fight to recognize opportunities that advantage or disadvantage friendly or enemy forces. Finally, his integrated threat analysis must be routinely provided to the commander so he can update his guidance and decision-making tools.

The integrated threat picture provides the means to make decisions about the enemy and friendly courses of action. It requires the BOS-specific intelligence preparation of the battlefield (IPB) of each BOS element to be simultaneously overlayed and then analyzed, to form a comprehensive scheme of maneuver…a story of what the enemy will do. The integrated threat picture strives to make sense of current battlefield events, to predict future enemy schemes of maneuver, and recommend friendly courses of action that will leverage friendly capabilities against enemy vulnerabilities. In other words, it seeks to recognize opportunities.

If we knew the enemy scheme with certainty before he could execute it, we would also know with certainty the most effective option for employing the brigade's combat power to defeat that scheme. But this is an ideal situation with which units are rarely presented. Consequently, the intelligence officer must not only be able to *predict* the "who," "what," "where" and "when" of the enemy's plan but, most importantly, the "why." The trend we see at the JRTC is that S-2s are best at templating the "who," "what" and "where." This, of course, becomes the situation template

(SITEMP), and it is usually all that operations are planned against. To the extent that the S-2 has also not integrated the BOS IPB into the SITEMP, it will be that much less useful. Some S-2s, however, do incorporate the "when" information, but it is usually not sufficiently detailed. If "when" information is reflected, it usually shows up as marginal information on the SITEMP. In other words, the portrayal will typically cover a general block of time, as if to freeze the enemy in place for a 24-hour period.

Time and space relationships of enemy activities should be shown on the event template. This template, the analysis resulting from combining the modified combined obstacle overlay (MCOO), doctrinal template and the situational template, should pictorially portray the enemy's scheme of maneuver. Much like a football coaches "Xs" and "Os" on a chalkboard, the event template arranges enemy activity in time and space based on doctrine and the effects of terrain and weather. While the event template may cover a more-or-less-than-24-hour period, it must reflect detailed battlefield activities as they relate in time and space. Predicting "why" the enemy is doing "what", "where" and "when" is a key ingredient to successfully developing an event template. If the S-2 fails to determine a prediction of the enemy scheme of maneuver, there is little left to do but fight his weapons. This result, often seen at the JRTC, has two immediate consequences for the brigade. First, the friendly plan results in an unsynchronized scheme of maneuver that fails to desynchronize the enemy's scheme of maneuver. Secondly, the plan seldom attacks enemy vulnerabilities, much less creates opportunities which friendly combat power can exploit.

An example will illustrate the points of the previous discussion. Consider the issue of minefields on the JRTC battlefield. Brigade S-2s usually accurately template where the OPFOR will employ
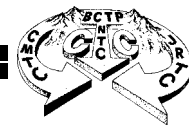
minefields. Sometimes the S-2's SITEMP also indicates where supply caches might be located. Brigades generally recognize that the enemy employs the fundamental of linking obstacles to observers and fires. Here is where the problem begins. The S-2's SITEMP cannot depict these relationships. There is more to the enemy's use of minefields on the JRTC battlefield. He fights mines as a system. This system not only includes caches, observers and direct and indirect fires, but also command and control and resupply, as well as a rationale for employing them when and where he does. In fact, the enemy attacks our vulnerabilities with his mine systems. Without an event template, it becomes difficult to see the enemy's minefield system scheme of maneuver. Furthermore, vulnerabilities also exist in the enemy's system. For example, the system must be sustained and supported with supplies to his caches, logistics to his observers and communications for orders. Without the predictive power of an event template, these opportunities go unseen. Most brigades seldom exploit these opportunities and end up fighting an unsynchronized battle to clear minefields rather than a synchronized battle to destroy the enemy's mine system.

One of the most important tools the intelligence officer has to sense the battlefield is the Commander's Critical Information Requirements (CCIRs). Divided in to the components of Priority Intelligence Requirements (PIRs), Essential Elements of Friendly Information (EEFIs), and Friendly Force Information Requirements (FFIRs), CCIRs are absolutely key in the synchronization process. Each component is important to the S-2, not just the PIR. There are two CCIR pitfalls for S-2s: improper development and exclusive focus on the PIR.

The PIRs may be the most important component of CCIRs. They should be the essence of what the commander needs to know to make the critical decisions to win the fight. **FM 7-30, *The Infantry Brigade,*** asserts that "the commander, not the staff officer, develops CCIR." An affirmation which **FM 101-5, *Staff Organization and Operations,*** reinforces where it states that "the commander alone decides what information is critical, based on his experience, the mission, the higher commander's intent, and input from the staff." Repeated observations from JRTC rotations show that brigades seldom adhere to the stated doctrine. It is the staff's input that is germane to our present discussion, and, in particular, the S-2's contribution.

The S-2 must ensure that the PIRs are in the form of questions that directly relate to decisions the commander anticipates making. Unfortunately, most PIRs tend to be merely the S-2's most important *intelligence indicators.* Returning to the previous minefield example, a frequently developed PIR is: "Where are the enemy minefields?" This is an important piece of the S-2's puzzle, but it is not a PIR because, when answered, it does not directly lead to a commander's decision.

Appropriate PIRs link to a series of intelligence requirements (IRs) developed toward discerning a particular piece of the enemy commander's scheme of maneuver. This, in turn, develops opportunities or options for the commander to make decisions with respect to synchronizing combat power against the enemy's scheme. As an example, consider the following PIR as it might relate to our minefield scenario: ***"If the enemy mines Route Zinc, is this mine system a main effort to deny our force buildup or a supporting effort to interdict, harass and attrit our CSS?"*** When answered, this PIR is a decision-making tool and not just a piece of intelligence. For example, it may lead the commander to commit a certain size, type or combination of forces along Route Zinc. It may lead him to select another route altogether.

The other two components of CCIRs, EEFIs and FFIRs generally suffer the same treatment as PIR. They seldom receive any attention at all from the S-2 and are typically an afterthought drawn up by the S-3. In fact, the S-2 needs to be involved by recommending input, just as with the PIR. Here is why. Basically, EEFI are those things the enemy commander probably wants to know most about us. Said another way, our EEFIs are *his* PIRs. To effectively and efficiently synchronize combat power against the enemy scheme of maneuver, it is important to try to know what decisions the enemy commander must make. A way to define these decisions (and ultimately stay inside the enemy's decision loop) is through proper development of EEFIs.
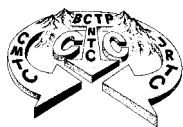
Brigades seldom demonstrate this level of sophistication at the JRTC. What is often seen are EEFIs that take the following form: *"The location of the BSA."* This does not indicate an enemy decision in and of itself. Yet, every rotational brigade at the JRTC knows that the BSA is a likely high payoff target (HPT) and that its location cannot be concealed. So, how useful is this EEFI? Doctrinally, having stated this as an EEFI, the brigade is obliged to commit resources to deny the information to the enemy. There is nothing the brigade can reasonably do within its resources to deny this information to the enemy. Therefore, what does this EEFI contribute to synchronizing combat power?

The FFIRs, on the other hand, are those things the brigade needs to know about itself that are critical to maintaining synchronization. However, many units at the JRTC miss this significant distinction and tend to craft FFIRs more like IRs appropriate to serious incident reporting. The S-2 has a responsibility to check these, ensuring that they address those areas that the enemy can most easily exploit and desynchronize our effort. Again, a typical example of FFIR developed at the JRTC might be *"Loss of a tank or Bradley."* Instead, a proper FFIR might be, *"Failure of the heavy reserve platoon to occupy BP 32 with at least two tanks."* If CCIRs are to contribute to synchronizing the fight, it is important that the S-2 share in the ownership of all three components and ensure that they are properly focused intelligence requirements.

## II. The Staff's Role in Synchronization

As noted previously, all staff sections in the brigade Tactical Operations Center (TOC) have the responsibility of integrating into the intelligence operating system. Those staff sections that perform this responsibility fundamentally contribute to synchronizing intelligence within the brigade's plan. This same concept is applicable to all operating systems. To effectively synchronize, each brigade asset requires staff officers and noncommissioned officers knowledgeable and proficient in the processes that are key to synchronization. Two of the most significant processes are the Military Decision-Making Process (MDMP) and the Targeting Process, which is itself imbedded in the MDMP. O/C observations indicate a number of trends in this regard.

Most units at the JRTC struggle with the MDMP because of a lack of training proficiency. The lack of flexibility and inefficiency are two symptoms of this training deficiency. Units either apply the steps by rote, regardless of the time available, or omit steps (or…omit important parts of steps) when constrained by time. U.S. Army doctrine states that no step of the MDMP should be omitted. To omit a step is to ensure that synchronization will suffer. Additionally, a number of methodologies are imbedded within the steps of the MDMP that facilitate synchronization. If the brigade is inefficient in executing the MDMP, some of these methodologies will effectively

contribute to synchronization, as they should. The targeting process is one example of these imbedded methodologies. O/C observations show that most units not only fail to imbed it within the MDMP, but also tend to approach targeting as *the* synchronization process, in and of itself.

While no step should be omitted, there are numerous efficiencies that can be employed in a time-constrained environment. Methods include parallel planning and using various types of rehearsals or the directed course of action. All of these can save time, but each carries with it factors that must be taken into account. Efficient use of time is critical to effective synchronization. Yet brigades seldom adequately analyze their use of time as it pertains to the MDMP steps. Each step is a tool that shapes and synchronizes the plan, and each mission requires flexibility in how these tools are applied to the task. For example, while units routinely apply the "one third-two thirds" rule, they tend to spend an inordinate amount of time wargaming. Their error may be compounded when they invariably insist on executing a brigade "rock drill" instead of another more efficient method of rehearsal, regardless of the impact on subordinates' time. They usually do these things because "it is standing operating procedures," which, in turn, is merely an indication of their level of training. In either case, these actions can end
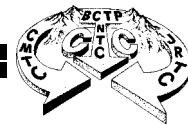
up being a poor use of time and a poor use of time makes synchronization more difficult to achieve.

Weak execution of the mission analysis step is a particularly notable adverse trend. Mission analysis may be the most important step of the MDMP since it constitutes the foundation upon which the plan depends. Thus, this step makes a significant and direct contribution to achieving synchronization. It constitutes the foundation upon which the plan and all changes to the operation depend. If mission analysis neither provides the commander with all of the critical information he requires for formulating a clear picture of the enemy and friendly forces nor is based on pertinent analysis of this information and its impact on battlefield developments, synchronization will likely flounder in subsequent MDMP steps.

The correct information and analysis the staff must develop during mission analysis can be best described in the terms of the difference between *status* and *state*.[1] The meaning and difference between the two contrasts markedly with what staffs usually present. Staffs usually give commanders only *status,* or discrete information rather than *state,* which is the impact discrete information has on future operations. *State,* therefore, is information plus analysis and the key to the commander's vision of the battlefield. Discrete information alone is insufficient for the commander to properly and rapidly develop a concept from. S*tatus* is merely a summary of what the commander can usually already find on the heads-up display charts in the TOC. This is the standard slant report information: how many tanks are up, the strength percentage of platoons or whether communications systems are "green, amber or red." S*tate* includes analysis such as force ratios, assessments of morale and welfare, and evaluation of key weapons' capabilities to function as systems. Without knowing both status and state, synchronization is challenged because the plan will not have adequately factored in changes to capabilities and limitations to the friendly and enemy concept or schemes of maneuver.

An example of this is illustrated by what O/Cs invariably observe when brigades transition between offense and defense. Usually, in the staff's haste, aggravated by the nature of continuous operations at JRTC, the mission analysis step becomes shortened and valuable information is not briefed or linked by analysis. Specifically, O/Cs seldom observe the S-1 brief the impact of recent personnel casualties on unit morale or the impact the pace replacement operations might have on future operations. Other combat multipliers seldom present analyzed information on where their units are on the battlefield and the impact on future operations, their state of supply or the completeness of systems and crews. Intelligence officers hardly ever provide an assessment of the effects of the battle on the enemy's personnel and equipment from these same perspectives. All of this analysis can prove important to synchronization because it provides indicators of changes in capabilities and vulnerabilities that the commander might desire to exploit, enhance or seek compensation. Without it, the commander and staff neither have the information they need to synchronize resources nor an adequate understanding of where, how or why to synchronize combat power.

Synchronizing combat power is a dynamic effort for the staff. The MDMP should be a dynamic process. It should be a continuous process in state of refinement and adjustment to changes occurring and predicted on the battlefield. This fact makes sense because the battlefield is continually changing. In every contact, the brigade learns something about the enemy and he learns something about the brigade. Enough of these indicators cause changes to occur in the enemy scheme of maneuver. Brigade task forces have the resources and capability to stay ahead of these changes. Unfortunately, most brigades approach the MDMP as a discrete event -- a process pulled off the shelf only when prompted by a new FRAGO from higher. They seldom use it as a basis of the brigade battle rhythm to continually analyze the mission predict future operations and develop plans to stay inside the enemy's decision cycle.

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[1] This concept was articulated by COL Lloyd Austin, Commander of the 3d Brigade, 82d Airborne Division, during his second rotation as a brigade commander to the JRTC, November 1998.
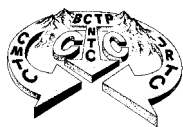
Indicative of the dynamic characteristic of the MDMP is the fact that it is built on a number of sub-processes, or methodologies, such as the wargame or IPB. If the staff properly performs these sub-processes, they will naturally perpetuate friendly *decision cycles.* Orders from higher also accommodate easily within this concept. It is largely from this continuous approach to the MDMP that brigades are able to "look 24 to 48 hours out" and stay within the enemy's decision loop. The sub-process or methodology that brigades almost universally have problems with is the "targeting process."

Targeting enjoys little success because staff officers, warrant officers and NCOs either do not understand their individual contribution, are not integrated into the process, do not know enough about how the process works, or have little practical experience at targeting. As already indicated, targeting is a *sub-process* within the MDMP and, therefore, makes an important contribution to achieving synchronization. However, the targeting "meeting" is often approached as *the* synchronization process in and of itself. In fact, the targeting meeting should be the culminating event of a methodology that involves several steps, each of which is properly part of the steps of the MDMP. Two of the most important of these are developing an *integrated threat picture* and the *commander's decide.*

True to the methodology, the two are inextricably linked. However, most staffs, as already discussed above in the examination of the intelligence operating system, do not produce or maintain the first, and, as a consequence, seldom force the second to be clearly defined. So, once every 24 hours, parts of the brigade typically settle into a lengthy meeting that attempts to accomplish everything from threat analysis to wargaming, task-organizing and assigning tasks and purposes without focused commander's guidance. This practice almost always ensures a lack of battlefield focus and guarantees that the brigade will only stay inside subordinate unit decision cycles.

Prior to the targeting meeting, the staff has to have produced an updated predictive integrated threat picture as to the enemy's most probable and most dangerous course of action for the upcoming targeting period.

This analysis must explicitly answer the question of why the enemy might elect these courses of action. The integrated threat picture must also receive the commander's approval. This decision is the *commander's decide* and the first step of the decide-detect-deliver-assess (D^3A) targeting methodology. It is the only way the first step of the methodology should be determined because this acceptance constitutes the commander's vision of the battlefield, that is, what enemy vulnerabilities he will attack next and why he will attack them. To do this, he also needs to envision the enemy's scheme of maneuver options. Without articulating these, a synchronized operation is in jeopardy, for the staff may end up focusing on a different fight than the commander envisions. Lacking a common, commander vision -- or "decide" – of the enemy scheme of maneuver usually has the unfortunate result of causing the staff to target only the enemy's weapons systems with little knowledge of the enemy's intended use of the same. If the staff does not target or synchronize against an enemy plan, as directed by the commander, there is little left to do but target weapons. Staffs at the JRTC almost never engage the commander in the targeting process to this extent. They operate absent the commander and present him the results of their targeting deliberations after the fact. The proper development and presentation of the commander's decide takes time, coordination, integration and preparation to work correctly for synchronization. A clear, common understanding of the enemy scheme of maneuver thus constitutes a necessary step in synchronizing the brigade.

How does each staff section approach the targeting or synchronization process so as to ensure that they are making the correct contribution? What should brigade executive officers and operations officers do to ensure integration? One clear answer to these questions can be found in an article in the September-October 1998 **Field Artillery,** *Integrating Fires into the Brigade Battle Plan,* by LTC Art Bartell, MAJ Glenn Harp and SFC Phillip Serrano. While written primarily for a fire support audience, the methodology is superb tactics, technique, and procedures (TTP) that easily translate into the language of any combat multiplier.
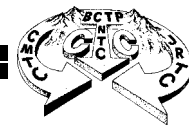
The article describes how the fire support world's practices in targeting are imbedded or integrated in the first four of steps of the MDMP. The mission analysis step yields the usual specified and implied tasks. However, with respect to targeting, these tasks are further analyzed to determine essential fire support tasks. Essential fire support tasks could just as easily be essential air defense tasks, or essential civil affairs tasks. This step, therefore, produces two key targeting products. The first result yields the elements necessary for the commander's concept of fires, but this could just as easily be the commander's concept for psychological "fires." The second result yields the high value (Air Defense/Civil Affairs) targets (HVTs). Important to this step is both rationalizing these targets to the commander as well as graphically portraying the locations and activities of the HVTs on the S-2's event template.

During course-of-action (COA) development, and following the commander's guidance, the essential tasks are used to develop the concept of fires. Here is where fire supporters use the methodology of task, purpose, method, and effects (TPMEs). Again, any combat multiplier can develop TPMEs with respect to their particular capabilities. Substantial emphasis should be placed on developing and articulating the effects and ensuring that the purposes are nested within the COA maneuver concept.

Next, the COA is wargamed and it is during this process that the scheme of fires is developed. The scheme sequences HPTs and specifies sensors, triggers, shooters and assessors. The targeting synchronization matrix (TSM), one of the targeting products, both requires input from all of the fire supporters and provides a concise visual means to represent the coordination and integration of resources in time and space. Hence the synchronization. Using this matrix, fire supporters develop a fire support execution matrix (FSEM). These products: the scheme of fires, the HPT list, the allocation of resources toward fire support tasks and the *"F"*SEM are analyzed for each of the action-reaction-counteraction steps of the wargame. Thus, there is a simple TTP for integrating all combat multipliers into the targeting or synchronization process as well as TTPs to ensure that targeting falls out of the MDMP. Staffs at the JRTC do not demonstrate this level of sophistication.

Therefore, an overarching solution to better synchronization begins with linking the "targeting" meeting with the D^3A methodology as it relates to the MDMP and recognizing it as a synchronization methodology. This is more than semantics. It is a mindset that the brigade commander has a significant role in developing in his staff.

III. The Commander's Roles and Responsibilities for Synchronization

> *"As I could predict with a probability bordering on certainty that the enemy would attack with strong armored forces in conjunction with strong artillery aided by good observation, I decided to repulse the attack through the use of the massed panzer regiment employing a mobile style of warfare. In my comments I left no doubt whatsoever that the…regiments would have to defend themselves, for our Panzers could not be everywhere. Various types of reconaissance would be the basis for making the initial determination as to where the enemy would attack with strong armored forces."*
>
> **--Generalleutnant Hasso von Manteuffel, Battle of Targul-Frumos, Russian Front, May 1944**

The pre-eminent responsibility for synchronization belongs to the commander. As implied earlier, the staff's actions can significantly facilitate his effort. However, brigade commanders rotating through the JRTC demonstrate either a lack of understanding of how to achieve synchronization or a lack of involvement in the planning synchronization. The remainder of this article focuses on steps commanders can take to effectively synchronize combat power. These include better formulation of the commander's intent, involvement in the *decide* step of the D^3A targeting methodology, and improving the quality and use of the Commander's Critical Information Requirements (CCIRs).

Commander's intent has undergone numerous changes over time. Each change has sought to provide a better way for commanders to concisely express their vision -- the essence of what is required for mission success -- what must happen to win. Intent is also the foundation upon which the synchronization of the brigade's combat power is built. The difficulty has always been to express the "vision" of an upcoming battle in concise and simple terms for subordinates. This may be an art within itself. The current method of *"key tasks - endstate"* is yet one more evolutionary way to express intent and contribute to synchronized execution. As already noted, however, many commanders are not effective in their use of intent.

Commanders have become more involved in writing their intent rather than delegating the task to a subordinate. This is positive trend. Regardless, in all but exceptional cases, the resulting intent statement is merely a summary of OPORD paragraph 3, Concept of the Operation. As such, there is little, if any, value added to synchronization. If merely summarizing the scheme of maneuver tasks was all that was necessary to guide subordinates in battle, then we might also expect that every plan would work without a hitch. But execution always differs from the plan. Consequently, to ensure synchronization, commanders must have a means to both script key elements of the initial plan as well as focus subordinates through the "fog and friction" as the battle develops. Thus, *intent* goes beyond stating the tasks of paragraph 3, and describes the effects synchronization must achieve to win under any circumstances. These effects are fundamental to success of any plan. Taken together, they paint a picture for subordinates and guide their decision-making. These effects must be expressed relative to the enemy force, the friendly force or the terrain. Additionally, the commander's intent must organize these effects in time and space. This is difficult to do in a concise format, but is absolutely key to the effective and efficient synchronization of combat power.
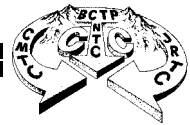
KEY TASKS: Seize the Fullerton flight landing strip.

Secure Route Zinc.

Rapidly build up combat power.

Interdict the enemy's infiltration.

ENDSTATE: The FLS secured, Route Zinc secured, the enemy destroyed and the brigade postured for follow-on operations.

Figure 1: Typical Commander's Intent.

A generic example based on rotational trends illustrates the difference between the JTRC norm and this concept of meaningful commander's intent. Additionally, it highlights the benefits between an intent that restates paragraph 3, and one that expresses the commander's vision for the synchronization of combat power. A commander's intent for an initial entry mission (forced or non-forced) usually looks like the example shown in Figure 1 above. At first glance, it is concise and most might find it acceptable. We do not.

A typical JRTC scenario for this phase of operations generally portrays an indigenous insurgent force vying for influence over the population with a goal of destabilizing the government. The guerrillas receive support from a third party country who has its own designs on the desired fall of the neighboring government which is the gaining of its territory. U.S. forces, under a Joint Task Force (JTF), enter in support of the embattled government. Outnumbered about 10:1, the guerillas seek to eject the U.S. forces by controlling the population, undermining the government, inflicting U.S. casualties and embarrassing the United States.

The intent in Figure 1 conveys little in terms of synchronizing the fight. The only visionary aspect of this intent that would be particularly useful in terms of synchronization, and might not be found in paragraph 3a, Scheme of Maneuver, is the word "rapidly." It does, however, somewhat organize the task of building up combat power in time and space. In this case, whatever happens in execution, subordinates two levels down would understand that they must seek to get all resources in the fight quickly. Aside from this

exception, the intent does not adequately focus subordinates on what effect they are to achieve regardless of the path the battle takes. Seizing the flight landing strip (FLS) is an objective, not an effect. For example, what ideas guide subordinates when the enemy airfield denial force is stronger than expected, or Route Zinc cannot be secured in its entirety or continuously, or the enemy infiltration is missed? Initiative needs to be directed toward a desired effect as well as a desired objective. Objectives can be found in paragraph 2, Mission, and paragraph 3, Tasks to Subordinate Units. In fact, this example of commander's intent ties subordinates to accomplishing the stated tasks regardless of battlefield developments. The intent essentially removes the option of *not* accomplishing these tasks. It also does not focus subordinates on synchronizing a desired effect on enemy operations, regardless of how the enemy reacts to the friendly plan. Consequently, it does not answer the question, "What effect must my forces have on the enemy to win?" To further aggravate the matter, commanders almost never change or focus these kinds of intent statements once the enemy casts his vote, the battlefield changes, and objectives are won or lost. For example, what if the commander, based upon information and analysis, sees that the enemy effort at the flight landing strip and along Route Zinc might be a supporting effort to tie down U.S. forces and prevent their maneuver against him in the southern part of the area of operations? Suppose the enemy can operate for 72 hours on caches and aerial re-supply. Additionally suppose that, given freedom of action to the south where the best enemy re-supply landing zones are, and
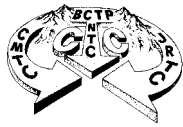
given access to key villages for food and water, the enemy will make more efficient use of aerial re-supply for munitions. And suppose analysis concludes that this effort can result in sustaining his force an additional 48 hours, and eventually permit massing of forces against a particular high payoff target. One can readily see that the intent in this example provides little guidance beyond initial objectives.

Figure 2 illustrates a more effective commander's intent. It better guides synchronization by articulating purpose, organizing tasks and describing effects. It comes closer to answering the question of "What effect must my forces have on the enemy to win?" and provides guidance in depth to subordinates two levels down.

KEY TASKS:

1. Convince the enemy, the government and the population that U.S. forces are superior, vastly capable, determined, professional and that they will win.

2. Do not commit forces to a tactical operation without thorough predictive intelligence analysis to find and fix the enemy.

3. Finishing the enemy must be on our terms by ensuring that units receive the time to fully execute Troop-Leading Procedures, so as to enable small unit leaders to fight combined arms.

4. Deny the enemy easy tactical successes by adhering to centralized CS and CSS planning, resourcing, preparation and execution. This is a brigade fight.

ENDSTATE: The enemy abandons the battlefield because we defeat him tactically in every effort and encounter; the government and population are a U.S. combat multiplier because they are convinced they are backing the winner; brigade soldiers' stamina is maximized and preserved because CS and CSS systems support, supply and strengthen the soldiers in every operation.

Figure 2: Example of Commander's Intent.

The intent in Figure 2 provides better scope to the operation. The guidance given in the statement transcends initial entry operations and indicates more clearly what is to be synchronized to beat the enemy and how it is to be done. It is still easily understood at the company commander level, and, in fact, allows these subordinate commanders initiative while characterizing what they must achieve. It can compliment the subordinate unit tasks and purposes stated elsewhere in paragraph 3. Finally, it indicates the effect that the brigade's collective combat power must have on the enemy to win.

Another way that brigade commanders can improve synchronization is through the level, form and quality of their participation in the targeting process. As already noted, this process is an integral product of the MDMP. Targeting should not be a sub-process of synchronization, but a parallel, almost unified process

with it. Targeting is the methodology that plans, coordinates and integrates the full available range of the brigade's combat power. It facilitates the synchronization of combat power effects to occur at the right times, the right places and the right combinations against identified enemy vulnerabilities. To achieve all this, therefore, must be based on anticipation of the effects current operations will have on the enemy's next move.

Commanders should drive the targeting effort. Many do not because they either do not understand their role in targeting, they operate on the periphery of the MDMP, they choose not to participate, or they fail to establish and enforce a decision-based brigade battle rhythm. The impact of the latter problem is the least obvious of the four and will be elaborated upon further.

Units at JRTC always structure their battle rhythm around an information-management routine. Yet, staffs
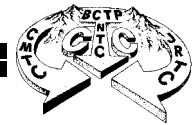
exist and should function to aid the commander in making decisions. Information management tasks, while important and necessary, are not sufficient to base decision-making upon. It is through the MDMP and not information management tasks that commanders can best accomplish this central function of decision-making. From any number of perspectives that one might attempt to view the validity of a decision-based battle rhythm, the conclusion is inescapable. The only effective way successful targeting or synchronization occurs is if the process is imbedded in the MDMP and the MDMP is the basis of the brigade's battle rhythm.
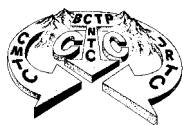
An information management routine usually organizes activities such as Tactical Operations Center (TOC) "huddles," battlefield update briefs (BUBs), commander's conference calls, and shift changes in a 24-hour period. All of these are important events. But, when the routine of the commander and staff are built exclusively around this structure, decision-making suffers. The MDMP at the JRTC is typically only triggered by a fragmentary order (FRAGO) from higher and much less frequently by battlefield changes. Consequently, the commander and staff tend to execute the MDMP by exception. But, daily changes on the battlefield frequently require commanders to make decisions independent of higher orders. Information management-based battle rhythms make it difficult to even recognize these battlefield opportunities much less sustain the preparations required to execute the MDMP in support of decision-making. As a result, either decisions not vetted by the MDMP get made or the staff or MDMP must compete to overcome the inertia of a routine overly focused on administration. In either case, synchronization is not well served.

As previously noted, the staff's participation through both information presentation and *information*

analysis is important to synchronizing the brigade's combat power. Both are indispensable to the commander's need to make decisions. Discrete information management presentation alone does not effectively facilitate decision-making. Analysis is needed to make decisions and the MDMP, as an analytical based process, serves this need well. Additionally, all information management functions can easily be integrated in to the seven steps of the MDMP. Since staffs spend a significant amount of time preparing for and executing these routine information chores, and since analysis of information is key to decision-making, it should also makes sense from an efficiency viewpoint that the MDMP ought to provide the structure for the brigade's battle rhythm. It is also a fact that most information presentation occurs somewhere within the seven MDMP steps.

When one considers the correlation between tactical success and thinking ahead of an enemy, the point of a decision-based battle rhythm makes yet more sense. In practical terms, the rationale is to stay inside the enemy's decision-making cycle. Every time the brigade makes contact with the enemy, the brigade learns something about the enemy's scheme of maneuver. The enemy also learns something about the brigade's. As the enemy learns things about the brigade, he makes decisions and adjusts his scheme of maneuver. The brigade must do the same thing and do it faster than the enemy. Our doctrine provides the structure to accomplish this. In essence, enemy activity yields indicators and a number of indicators tend to answer priority intelligence requirements (PIRs). PIRs, in turn, directly assist the commander in making decisions because they answer the questions that form the basis of his decision options. It is only through the MDMP that battlefield indicators and information are analyzed and effective PIR are developed.

Lastly, let us look at the superiority of an MDMP-based battle rhythm from the staff's perspective. A frequent complaint made by brigade staffs is that on the 24-hour-a-day, 360-degree, stressful battlefield there is not adequate time to properly do every step of the MDMP. Instead, ostensibly for the sake of efficiency, staffs focus on an information management routine and "surge" for an MDMP, if and when required. Nothing could be a bigger impediment to synchronization. Staffs invariably cut the wrong corners with the MDMP using this approach. The result is compartmentalized information, which tends to become overlooked by the commander. This leads to insufficient analysis, which leads to insufficiently detailed courses of action (friendly or enemy) which, in turn, almost always guarantees synchronization problems.

Step 1. Analyze the higher headquarters' order.
Step 2. Conduct initial intelligence preparation of the battlefield (IPB).
Step 3. Determine specified, implied, and essential tasks.
Step 4. Review available assets.
Step 5. Determine constraints.
Step 6. Identify critical facts and assumptions.
Step 7. Conduct risk assessment.
Step 8. Determine initial Commander's Critical Information Requirements (CCIRs).
Step 9. Determine the inital reconnaissance annex.
Step 10. Plan use of available time.
Step 11. Write the restated mission.
Step 12. Conduct a mission analysis briefing.
Step 13. Approve the restated mission.
Step 14. Develop the initial commander's intent.
Step 15. Issue the commander's guidance.
Step 16. Issue a warning order.
Step 17. Review facts and assmptions.

Figure 3: The Steps of the Mission Analysis.

On the other hand, if the battle rhythm were structured around the MDMP, then the structure for staff integration to occur would also be present, time would be used more effectively, and staffs would continually be in a state of formulating and briefing analysis to the commander. Thus, the commander would be better supported in decision-making. FM 101-5, page 5-27, states that in a time-constrained environment, "anticipation, organization and preparation" are keys to success. These conditions cannot properly be achieved using a typical information management routine as the basis for battle rhythm. Anticipation, organization, and preparation maximize the results of the MDMP.

Figure 3, taken from FM 101-5, illustrates the 17 tasks required in just the first of seven doctrinal MDMP steps, that is, the mission analysis step. Both information presentation and information analysis tasks are included. The importance of the mission analysis step to decision-making has already been noted. Many of these steps could be prepared or accomplished by any TOC shift or shared between shifts prior to the typical morning battlefield update brief to the commander. In fact, Step 12, Conduct a mission analysis briefing, could entirely replace the morning staff update to the commander. The remaining five sub-steps could also be accomplished before the commander departed the TOC for battlefield circulation (assuming that this was his practice) or during a mid-day return. Regardless, the concept requires the brigade

commander's engagement and improves efficient use of time. Planning at all echelons is more effective based on a foundation of commander involvement, thorough mission analysis and an ability to execute parallel planning. All seven MDMP steps can provide the requisite structure for a brigade's battle rhythm. If so structured, the targeting challenge that most brigades confront at the JRTC will also become easier to handle.

In the D^{3}A targeting methodology, "decide" is the first step. The end product of the "decide" step must be an expression of the commander's vision of how current battlefield events have shaped what he must do to the enemy next. Few commanders at the JRTC are providing sufficient "decide" guidance to assist the targeting process. Three significant reasons are responsible for this.

First, as already noted, an information management-based battle rhythm does not provide appropriate and adequate time for the commander to receive integrated analysis of the progress and state of the mission. That is, commanders are not getting recurring mission analysis that allows him to answer four general questions: how is our plan working and why; what is the enemy doing and why; what will the enemy do next and why; and, finally, what must we do next and why? Furthermore, most commanders do not demonstrate that they recognize the "decide" is no different than commander's guidance at the end of mission analysis.

The second reason can be inferred from the first. Commanders do not expect nor are they demanding an integrated picture of the battlefield from the staff. This point is the heart of the commander's responsibilities in the synchronization process. The saying *"commanders drive intelligence and intelligence drives operations"* expresses the impact of this shortcoming. Brigade commanders at the JRTC routinely accept situation templates over event templates from their intelligence officers. Just like a winning football coach wants to know what his opponent will try to do in the upcoming game, and relies on his coaching staff to develop that opponent's game plan, so the commander must demand the right level of resolution from his staff. If the coaching staff tells the head coach that the other team will likely run the ball, pass the ball, kick some and try to get the ball in to the end zone, he would be hard-

pressed to formulate a successful game plan for the home team. Just like the coach who wants to know specifically which way his opponent will likely run or pass in short yardage situations, and why he is likely to use a particular play. So too the brigade commander needs the same educated guess, in the form of the integrated threat event template, to tell him what the enemy will likely do.

The last reason commanders are not effectively guiding the targeting process is that they are not full participants themselves. Some commanders "sit in" on the initial minutes of the targeting meeting, but this is the exception. Often the meeting is held at a time that is not conducive to having the commander present or when it is at odds with his personal battle rhythm. Most commanders do require approval of the resulting FRAGO. But this approval is usually more form than substance since they have excluded themselves from the process. We seldom see a commander receive a brief on the results of the targeting meeting. Properly imbedded in the MDMP, the results of the targeting meeting look a lot like the COA decision briefing. Consequently, at virtually every step of the targeting process, we observe a lack of required commander's guidance and a failure to adhere to the MDMP as the targeting methodology. Without this guidance and approach, the staff in not adequately focused or structured. Without focus and structure, synchronization suffers in proportion as the staff produces plans that, at best, coincidentally support the commander's vision -- if, in fact, the overall process has assisted him in developing one -- and not vetted through the MDMP for the commander.

One of the best ways a brigade commander can guide the targeting process is to focus the staff on operations ahead of the battalions' operations to shape the battlefield. Doing this will tend to keep the brigade staff from interfering with the battalions' fight. In a figurative sense, we say that companies plan and fight today's fight, that battalions plan for tomorrow's company fights and brigades plan for the battalions' fights the day after tomorrow. Seldom do brigade commanders at the JRTC demonstrate that they have mastery of this skill.
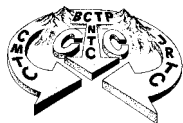
Finally, commanders can improve synchronization by improving how they formulate and use Commander's Critical Information Requirements (CCIRs). "Commander" is the first "C" in CCIR. When properly developed and employed CCIRs are the gauges that monitor synchronization. Much like control panel lights, CCIRs assist, aid control, and provide warning and diagnostic indicators. In other words, CCIRs are part of a synchronized plan that should govern the effectiveness of synchronization in execution. Consequently, brigade commanders should give them special attention. For purposes of this discussion, we will only concentrate on the PIR component of CCIRs, but the points are equally applicable to the FFIR and EEFI components. The reader is reminded of the earlier discussion of these components from Section II.

We see two significant trends with respect to PIRs. Commanders do not "own" their PIRs and PIRs, therefore, seldom directly relate to decisions that commanders anticipate having to make. Both of these trends detract from the brigade's ability to synchronize its effort.

Commanders should drive PIR development. If they placed more emphasis here, they would establish true ownership of the PIR. Developing ownership begins with initial guidance detailing the brigade commander's enemy focus during the mission analysis step of the MDMP. Answering questions such as: What enemy vulnerabilities can I exploit? What is the enemy's scheme of maneuver? What do I need to know to do to gain an advantage? are just some generic examples of ways commanders can begin to form PIR guidance for the staff. Few commanders give this type of guidance. The trend we see at the JRTC is that staffs (usually the S-2, but maybe the S-3 or XO) must interpolate these kinds of questions from the commander's guidance rather than the commander stating what he needs to know about the enemy. As a result, the PIRs that usually result are merely a set of intelligence indicators for the S-2, and fall short of being true commander's PIR.

Authentic commander's PIRs are questions that, when answered, directly relate to the commander's anticipated decision options. These decisions seldom arise directly from a single, routine battlefield intelligence indicator. They are key decisions the commander himself must make to exploit opportunities. They typically arise from the analysis of several indicators and allow opportunities to be recognized. These opportunities can be created from the success of friendly operations or offered by the lack of friendly success in a particular area. A specific example from a JRTC rotation illustrates the difference.

For an attack against an urban builtup area, the brigade faces the following tactical challenge. The enemy defends in reinforced company strength. His defense has to account for essentially two battalion-sized ground or mounted avenues of approach: a northern and southern approach. The northern approach consists of two parallel high-speed routes. The southern route has a single high-speed route. One of the northern routes and the southern route could each divert to a central route, forming somewhat of a third mounted avenue of approach. Dismounted avenues of approach generally follow the mounted avenues, but the terrain offers wider dismounted avenues of approach. The enemy also has to contend with the possibility of at least three-company to battalion-sized air avenues of approach, only one of which would require them to orient in a different direction in the case of an air assault. The depth of the enemy defensive zone extends about 17 km from the line of departure (LD) to the objective. To defend, he has four platoons reinforced with mortars, SA-8s, mines and barrier material, a mechanized or armor platoon and a squad of reconnaissance.
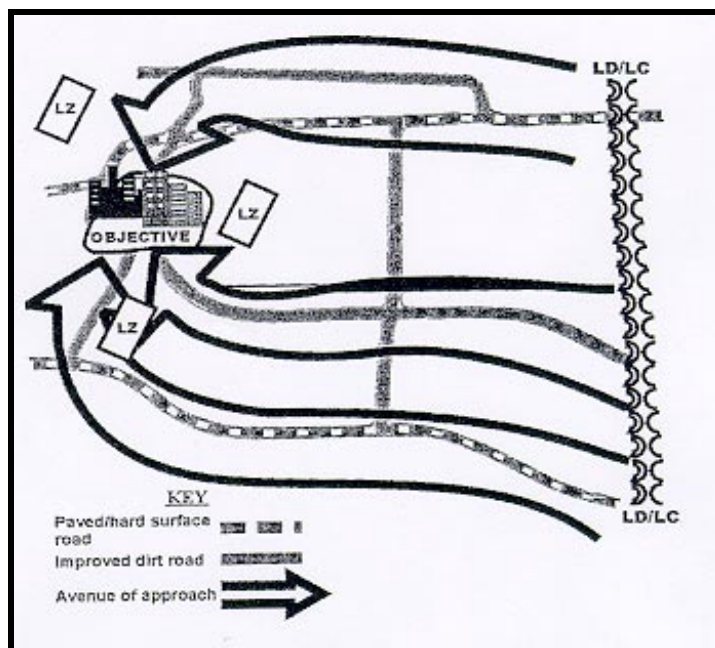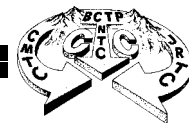
Figure 4.

In an actual rotation, the friendly forces elected to show a deception from the north, using a heavy company team feint and a false air assault to the option to cause the enemy to reorient. Simultaneously, the main attack would execute an infiltration attack with two battalions from the south. The commander needed to make at least four key decisions to support the synchronization or execution, although these were not specifically stated. First, would the enemy believe the deception? Second, would the enemy react to the deception by reorienting forces north? Third, what was the best southern dismounted route that avoided the enemy's strength? Fourth, when and where would the enemy counter attack?

The PIRs developed to govern this operation were as follows.

     A. Where are enemy counter-reconnaissance forces?

     B. Where are civilians within Shugart-Gordon? Are there any innocents?

     C. What is the disposition of enemy forces in Shugart-Gordon?

     D. Where are counterattack forces?

     E. Where are the enemy mortars?

     F. Where are the enemy minefields and obstacle belts?

A closer analysis of these PIRs reveal several weaknesses. They do not, in and of themselves, directly answer the commander's key questions. At best, they are intelligence requirements that take the situational read one step closer to answering the commander's questions, but require additional analysis. Based on the four key questions stated earlier, better PIRs might be similar to the following:

     A. What will cause the enemy to counterattack?

     B. Has the enemy drawn his security forces away from our main effort?

     C. Is the enemy commander convinced by our deception?

     D. Which is the most secure route to the objective?

     E. Where is the best point in the enemy's defenses to breach?

These PIRs contribute to synchronization. When answered, they assist the commander in executing
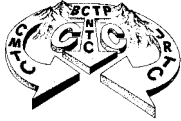
decision options. A collection plan can be developed to answer these PIRs that would very likely include the intelligence requirements that the brigade actually presented as PIRs. Notice also that the latter PIRs pose a variety of interrogatives for the commander. Taken together, they tend to answer "why" and "when" the enemy will do "what." These answers are significantly more useful to the commander's decision-making. However, the former intelligence requirements are all "where" and "what" interrogatives. When answered, the commander and staff still must formulate the other interrogatives through analysis -- a difficult task in the heat of battle.

IV. CONCLUSIONS

> *"We contend that success was based on the following factors:*
> *1. The accurate assessment of the situation in general.*
> *2. The detailed defensive preparations, carried out diligently and reliably, which assured the closest cooperation of all arms within the (unit), and in which each weapon was able to exploit its technical and tactical characteristics to the full…The accurate assessment of the situation in the various phases of the battle and terrain...."* **--Generalleutnant Hasso von Manteuffel, Battle of Targul-Frumos, Russian Front, May 1994**

When "synchronization" appeared in the 1980s as a tenet of AirLand Battle Doctrine, it was initially concerned with orchestrating the more traditional elements of combat power. As doctrine responded to technological capabilities and changing missions, the elements of combat power, grouped into the seven battlefield operating systems (BOSs), became a synchronization building block. These concepts remain part of the foundation of doctrinal development today. However, today's operating systems and Army missions are much more sophisticated. The increased sophistication in the technology we can now bring to complex battlefields, and that which we seek to bring to future battlefields, place a tremendous challenge in front of brigade commanders and their staffs. Units that will train at the Joint Readiness Training Center in the future should consider the ideas presented as recommendations on how better to meet the demanding challenge of battlefield synchronization.✪
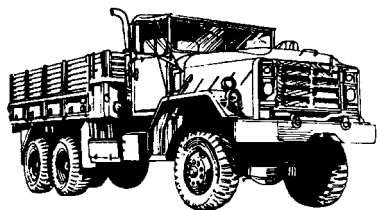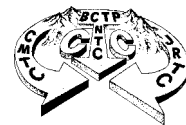
Truck Infiltration (Assault) Planning in a Heavy/Light Scenario

by LTC Michael Shields, National Training Center

NOTE: This is the first of two articles by LTC Shields on the difficulties light task forces experience when conducting truck infiltration missions at the NTC. His second article, to be published in **CALL's CTC Quarterly Bulletin, 1QFY00,** *Defile Operations at the NTC,* presents TTP for planning and executing such a drill.

ISSUE: Light task forces are challenged when planning for, and executing, truck infiltration missions.

DISCUSSION:

    1. A light task force generally conducts a truck infiltration (assault) at NTC under the following conditions:

        a. The distance is too great to walk based on time available.

        b. There are insufficient aircraft for a *task force* air assault. Some elements of the task force conduct an air assault and the remainder conducts a truck infiltration (assault).

        c. The air assault conditions are not met. The air assault is aborted or canceled and a truck infiltration (assault) is the backup.

        d. The airborne assault conditions are not met. The airborne assault is aborted or canceled and a truck infiltration (assault) is the backup.

    2. When planning for tactical movement, unit leaders must employ a combination of both the tactical *road march* and the *approach march.* This article focuses on planning considerations ("a way") to successfully conduct tactical movement using *truck infiltration* and *approach march* methodology.

    3. A truck infiltration (assault) is to a tactical road march as an air assault is to air movement. Truck infiltrations (assaults) might be defined as combined arms operations to gain a position of advantage over the enemy, whereas tactical road marches are moves involved with getting assets from point A to point B when contact with the enemy is not anticipated. The following doctrinal definitions from FM 100-40 (Initial Draft) are provided for a common frame of reference:

        a. ***Troop movement.*** The transporting of troops from one place to another by any available means. Troop movements are either *administrative* or *tactical* (pg 17-2). In this article, the focus will be on tactical movement.

        b. ***Tactical movement.*** Occurs when contact with the enemy is possible or anticipated. In tactical movement, elements are organized for combat. There are three forms of tactical movement which units generally use at varying times on the battlefield (pg. 17-3):

            (1) **Tactical road march.**

            (2) **Approach march.**

            (3) **Combat formation.**

        c. ***Tactical road march.*** Used when contact with enemy ground forces is not expected. There are three formation techniques associated with a tactical road march (pg. 17-7):

            (1) **Open column.** Usually used in daylight with vehicular separation 50-100 meters or greater.

            (2) **Close column.** Usually used at night under blackout driving conditions and in restricted terrain with vehicles spaced so that each driver can see two lights on the blackout marker on the back of the vehicle to the front.

            (3) **Infiltration.** Vehicles are dispatched in small groups, irregular intervals, and at a rate that keeps traffic density down and prevents undue massing of vehicles.
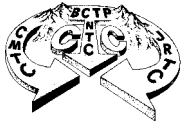
d. ***Approach march.*** Used when contact with the enemy is anticipated. The difference between an approach march and a tactical movement is an approach march employs larger security forces (security force, advanced guard, flank and rear security) because of a greater enemy threat. Units conducting an approach march are task-organized before the march begins and normally do not use a close column (except during limited visibility and in restricted terrain).

e. ***Combat formation.*** The ordered arrangement of vehicles and troops for a specific purpose.

(1) Types of combat formations include:
- **Box formation**
- **Column formation**
- **Line formation**
- **Vee formation**
- **Wedge formation**
- **Echelon formation**

(2) Formations are used in conjunction with the three movement techniques:
- **Traveling**
- **Traveling overwatch**
- **Bounding overwatch**

(3) Task forces generally use the column formation during truck infiltration missions. The advantages of the column include (pg. 17-11):
- **The column is generally the best formation to move large forces quickly, especially when limited routes are available (limited visibility considerations also).**
- **The column makes contact with a small part of the total force while facilitating control and allowing the commander to generate mass.**
- **The column facilitates speed of movement.**
- **The column is useful in restricted terrain and during limited visibility.**

RECOMMENDATIONS:

A recommended technique for planning truck infiltrations (assaults) is to use the following five plans (phases), similar to an air assault, using the reverse order of execution. This five-phase methodology benefits the task force in that the S4/S3-Air can use a similar format and modified documents or products from the air mission brief (AMB):

Phase 1. The ground tactical plan.
Phase 2. The off-loading plan.
Phase 3. The truck movement plan.
Phase 4. The loading plan.
Phase 5. The staging plan.

This article discusses key planning considerations for phases 2 through 5, and provides a start point for a tactical SOP (TACSOP) checklist for truck infiltration by phase. The article concludes with a proposed movement order format and movement table.

Off-loading Plan (parallels with the landing plan for an air assault): The enemy situation and the ground tactical plan drives selection of the off-load zone, dismount point (or points), and the off-load plan. The off-loading plan begins when maneuver forces arrive at the dismount point (DP) and ends when units have consolidated and are prepared to move.

1. ***The off-loading plan is the most critical of a truck assault.*** The task force is most vulnerable while off-loading the vehicles. The task force determines whether to dismount on the objective or away from the objective based on the following conditions:
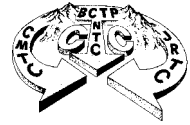
a. ***On the objective.*** The mission is terrain-oriented, the task force has accurate information on the enemy situation or the task force doesn't have time to develop the situation.

b. ***Away from the objective.*** The mission is force-oriented, the enemy situation is not clear, and the task force has time to develop the situation. Light task forces rarely have accurate information regarding the enemy situation. Dismounting away from the objective is the most common method used at NTC. The task force should plan one primary and one alternate DP. The unit must off-load at the DP ready to fight. This occurs when the unit is properly organized at the pick-up zone (PZ).

2. Use the following planning considerations as a basic tactical SOP (TACSOP) checklist for the off-loading phase of the truck infiltration (assault):

a. ***Intelligence.***

● **Establish surveillance at the off-load zone (OLZ) as part of the task force reconnaissance and surveillance plan.** Consider integration of fire support observers and attack aviation.

● **Plan to reposition those assets forward, as required, to support actions on the objective.**

b. ***Maneuver.***

● **Plan primary and alternate OLZs and ensure they are mutually supporting.**

● **Move and off-load in the order of march or assault.**

● **Designate unit marshaling points in support of off-load operations.**

● **Conduct off-loading using either the one-direction or two-direction off-load technique.** In either technique, soldiers move a safe distance away from the vehicle (10+ meters) and wait for the trucks to move out before moving to marshaling points.

☞ **One option is the "OLZ rush" where soldiers move directly to the marshaling point(s).** There is no halt 10 meters out.

☞ **The task force must consider weapons control status and when to load magazines and chamber a round (based on tactical and accident risk assessment).**

☞ **The unit should designate a soldier from each chalk to inspect the vehicle prior to release, to ensure no mission-essential equipment is left on board (e.g., hand grenades, SKEDCOs, breaching and lane-marking equipment).**

● **Ensure each serial is capable of fighting as a team (usually a rifle company). Sequencing of forces is critical.**

● **Separate serials by time and space (a force protection measure to mitigate tactical risk at the DP).** Allow a serial to off-load, trucks to move away from the DP, and the unit to begin moving to a marshaling point before allowing the next serial to close. This may prevent concentration of forces and subsequent destruction by enemy indirect fires.

● **Ensure vehicles at the DP maintain an interval equal to, or greater than, the bursting radius of 152mm or rocket artillery (BM21) if possible.**

● **Establish off-load standards: dismount left or right, time to off-load vehicles (such as one minute or less), time to move away from vehicles (such as five minutes or less), time for vehicles to clear OLZ, (such as 10 minutes or less).** Training, rehearsals, and type of vehicle (5T, FMTV, or M998) will affect the time standards.

● **Plan when to change weapons control status within the task force.**

● **Develop a fire plan in support of OLZ operations.** Consider direct, and indirect fire control measures.

● **Integrate heavy forces to secure the force during movement to the OLZ and to secure the vehicles during the move back behind the LD.**

● **Develop a plan if the OLZ is "hot" (such as using alternate OLZ).** Conduct actions on contact (consider seven forms of contact en route and on OLZ: visual, physical (direct fire), indirect fire, obstacles, aircraft, NBC, and electronic warfare, per FM 71-1 and FM 3-17).

● **Consider integration of attack helicopters and close air support to secure the force during movement and during off-load operations.**

   c. *Fire Support.*

● **Plan suppressive fires on known or suspected enemy locations at primary and alternate OLZ, regardless of threat information.**

● **Activate a critical friendly zone (CFZ) at the OLZ.** Establish a no-fire area (NFA) or sensor zone to protect friendly mortars when firing from within the CFZ.

● **The ground tactical commander or senior maneuver commander clears all fires at the OLZ.**

● **Maintain situational awareness.** Track all of the fire support coordination measures (FSCMs) within the BCT and the task force, especially NFAs.

● **Consider employment of smoke.**

   d. *Mobility/Countermobility/Survivability.*

● **Clear obstacles at the OLZ as required.**

● **Maintain light discipline in the serials.** This is a challenging, but necessary, task.

   e. *Air Defense.*

● **Position assets to support off-load.**

● **Establish aerial named areas of interest (NAIs), engagement areas (EAs), and aerial target reference points (TRPs) based on air avenues of approach to focus air guards and control CAFADs.**

   f. *Combat Service Support.*

● **Position forward aid station (FAS) and main aid station (MAS) in the order of movement to support operations at the OLZ.**

● **Identify a task force casualty collection point vicinity of the OLZ and designate non-standard means for casualty evacuation (CASEVAC) such as using the last truck of each serial as backhaul to an ambulance exchange point (AXP) or to the MAS.**

● **Consider CL III resupply if a long movement (i.e., ROM) and vehicle recovery operations.**

   g. *Command and Control.*

● **Plan inbound guidance to OLZs (radio and visual).** Consider using AT PLT/CO assets, infantry attached to scouts, or Sappers. Scout and forward observer (FO) teams are typically focused vicinity of the objective or task force decisive point. Once the first serial arrives, and linkup with the guidance team is complete, designated personnel from the first serial can provide inbound guidance for the remaining serials. Inbound guidance is not an option; it is an imperative.

● **Designate the location of the assault command post (ACP) or tactical command post (TAC) vicinity of the OLZ.**

● **Determine retransmission (retrans) requirements.** Ensure the TOC switches to the retrans frequency (not the maneuver forces' frequency) at the OLZ.

● **Develop a backup plan if communication is lost between the TAC and the brigade or main command post.** (For example: XO moves forward with "jump TOC" and re-establishes communications with the task force.)

● **Develop a plan and associated criteria to move the TOC to maintain C^2.** Synchronize with the scheme of maneuver so the TOC is not jumping during a critical event.

● **Ensure the succession of command and communications requirements is clearly understood throughout the task force.** This is critical to maintaining momentum if the task force receives indirect or direct fire at the DP and the TAC is destroyed.

● **Plan communications workarounds with brigade assets within the task force battle space.**

● **For operations security (OPSEC), units are prohibited from transmitting with non-secure radios (such as PRC 126/127s) until actions on contact.**

● **All soldiers must maintain situational awareness (SA) during movement and at the DP.** Land navigation is the greatest challenge, but additional challenges include darkness, weather, vehicle noise, and lack of communications in the back of the vehicle. Close quarters in the back of vehicles and vehicle tarps are obstacles to maintaining situational awareness.

Truck Movement Plan (parallels with the air movement plan for an air assault): The enemy situation, the ground tactical plan, and the off-load plan drive the truck movement plan. The truck movement plan begins when the unit is loaded and ends when maneuver forces arrive at the dismount point (DP).

1. The truck movement plan includes the movement from the PZ to the LD and infiltration or penetration through the enemy security zone to the DP. The task force uses organic trucks or has operational control (OPCON) of brigade truck assets (typically a truck platoon or company) during the truck infiltration (assault).

2. To ensure simplicity and focus of fires, a truck assault typically uses one route for the infiltration through the security zone and one route back (also based on limited routes and restricted terrain). Routes should avoid known enemy locations such as anti-armor ambush positions or combat security outposts (CSOPs).

    a. Include the following control measures, at a minimum:
- ● **Routes** (with a start point and release point).
- ● **Directions of attack.**
- ● **Check points.**
- ● **Phase lines.**
- ● **Traffic control points.**
- ● **Dismount points.**

    b. The task force establishes additional control measures and actions during movement to include:
- ● **Distance between serials.**
- ● **March interval.**
- ● **Light discipline standards.**
- ● **Actions at halts.**
- ● **Actions on contact during movement.**

    c. The task force monitors and enforces march speed (catchup speed relative to percent illumination and terrain) and task force movement.

    d. The task force TAC and TOC battle-track and assist the commander in controlling task force movement to prevent concentration of forces (one serial catching up to another) and losses in momentum (because of breaks in contact, boundary violations).

3. The following example demonstrates the criticality of maintaining control of the task force movement and preventing force concentration.
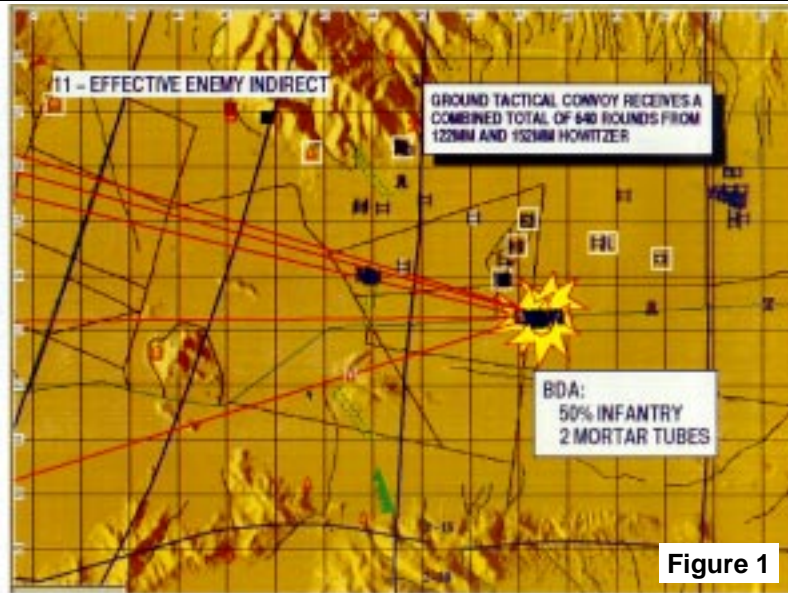
Figure 1

COMMENTS ON FIGURE 1.

1. There was no serial separation within the task force. The task force concentrated its forces at a security halt and was acquired by an OPFOR observer.

2. There was no CFZ activated to cover the task force at the security halt.

3. There was no plan for actions on contact (indirect fire). This resulted in the task force receiving a repeat mission prior to moving out of the area.

4. The task force was rendered 50-percent combat ineffective.

4. Truck infiltrations (assaults) move through enemy security forces. Often the enemy situation is vague, to include the enemy situation on the actual objective. ***To ensure the truck infiltration (assault) is secure during movement and is able to make contact with the smallest element possible, the task force should task-organize using the approach march methodology and consider the column formation.*** This includes organizing for combat with a security force, advanced guard, flank/rear security, and main body.

   a. Critical to success is having a unit SOP that facilitates rapidly transitioning from movement to contact (MTC) to hasty attack (in other words, from an approach march organization to a support/breach/assault force organization).

   b. If the light task force receives only a mechanized or armored platoon OPCON (rather than a company/team (CO/TM)), then the task force must consider the organization of the security force and advanced guard. Some additional options and considerations include the following:

   ● **When a CO/TM (-) is under the operational control of the task force, attach a TOW platoon to the CO/TM to serve as the security force (okay if ABN/AASLT task force with 5xPLTs).** The light task force commander may decide to employ the advanced guard using the TOW platoon to screen on one flank, or may employ the TOW platoon split section on both flanks.

   ● **When a mechanized or armor platoon is under the operational control of the task force, place the mechanized platoon under the operational control of D Company (if ABN/AASLT task force).** TM D can serve as the task force advanced guard. The light task force commander may decide to place the heavy platoon under the operational control of the lead rifle company in the advanced guard role. The TOW platoon screens a flank or operates split section and screens both flanks.

APPROACH MARCH ORGANIZATION
ENEMY SECURITY ZONE
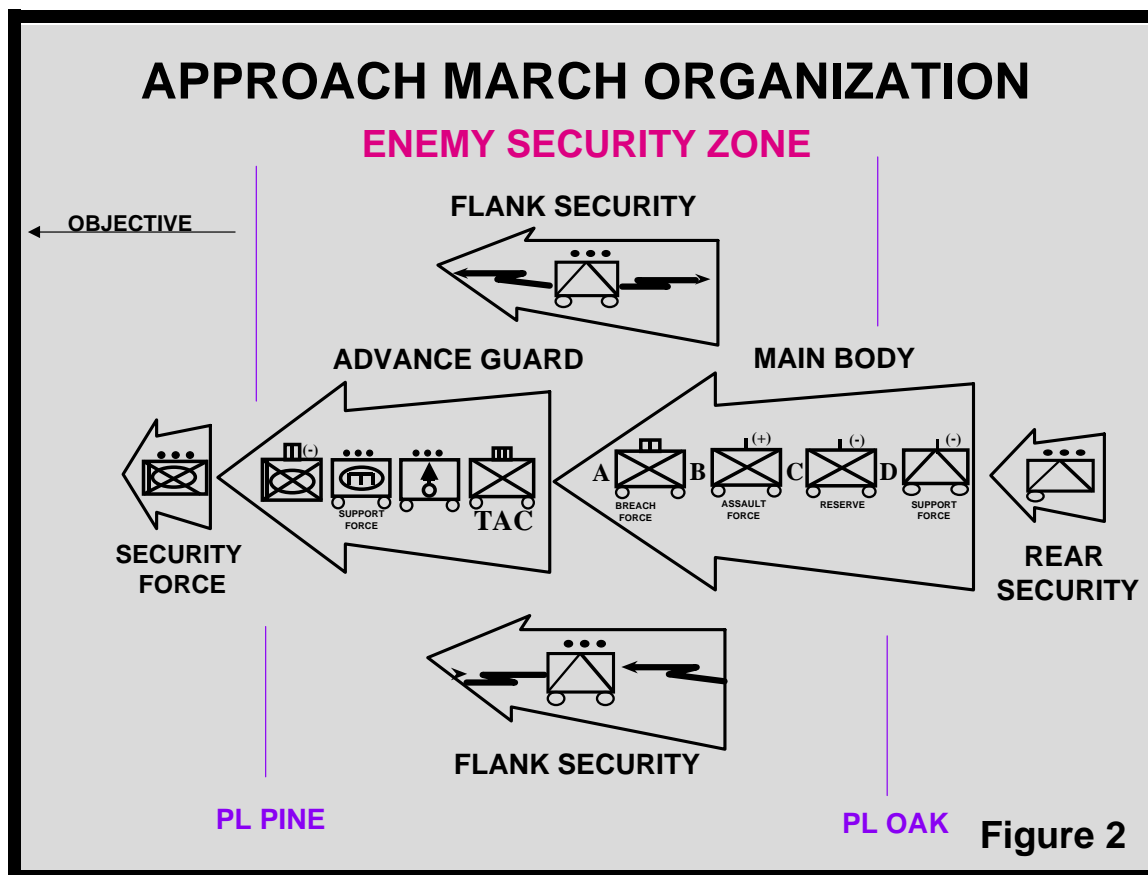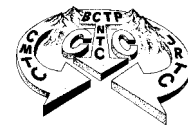
Figure 2

COMMENTS ON FIGURE 2. This is a graphic illustration of what this column may look like. The mortar platoon may be operating split section in support of the advanced guard and main body and light Sappers may be organized or repositioned differently in support of the task force scheme of maneuver.

5. Given the enemy threat in the security zone (such as BMPs, tanks, ZSU 23-4s, and BRDMs) and the signature of a truck assault, light task forces rarely "infiltrate" through enemy security forces. Truck infiltrations (assaults) usually require *fighting* through enemy security forces to the DP.

    a. To successfully conduct the infiltration (assault), light task forces typically *require augmentation by heavy forces* (usually a CO/TM (-) or a mechanized platoon OPCON to the light task force).

    b. Heavy forces can secure the trucks during movement (part of advanced guard or security force), secure forces at the DP when most vulnerable, and secure the trucks en route back to the LD. Once back, the heavy forces can revert back to heavy task force control. On occasion, heavy forces have remained under the operational control of the light task force during actions on the objective (occupying an attack-by-fire position to destroy enemy armor, or isolating the objective from reinforcements or counterattack forces.

c. The security force/advanced guard must have more firepower than the enemy security force (templated or known) or the task force main body is extremely vulnerable. A TOW platoon is rarely sufficient. The following demonstrates the impact of a capability mismatch and a lack of heavy force integration.

Figure 3

13 – ZSU HOLDS MAIN EFFORT

•The LT TF led with a TOW PLT (M2/TOW mix) followed by the TF mounted on 5T trucks.
•No heavy forces OPCON to the LT TF by the BDE.
•No advanced guard and inadequate TF plan to clear the passes (defile).
•Insufficient planning for actions on contact.

BDA ROLLUP:
9 INF SQDS
2 ENG SQDS
2 AVENGER
3 AT PLT

CAPABILITIES MISMATCH BETWEEN M998s/5Ts AND ZSU.
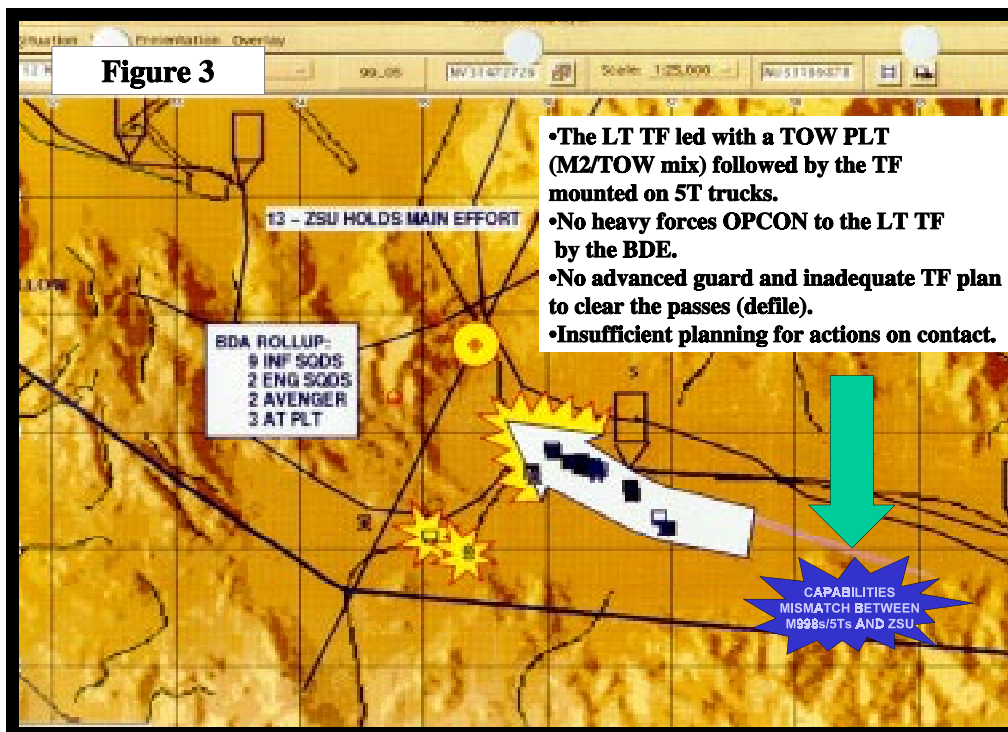
COMMENTS ON FIGURE 3. Typically, task force S2s overlook enemy air defense systems positioned forward in zone. The ZSU 23-4 at NTC carries approximately 2,000 23mm rounds on board, and has an integrated thermal site to replicate the Gun Dish Radar. The FLIR and computer are linked to the 23mm direct fire weapon systems. The ZSU is extremely effective against soft-skinned vehicles and has no tracking requirement. The OPFOR will use the ZSU in a secondary role against high payoff targets, such as light task forces mounted on trucks, without adequate security.

6. Use the following planning considerations as a basic tactical SOP (TACSOP) checklist for the truck movement phase of the truck infiltration (assault):

a. *Intelligence.*

● **Plan route reconnaissance along the task force direction/axis of attack or infiltration lane.**
● **Mark the route from the LD to the DP if possible.**
● **Establish a security force to move ahead of the task force advanced guard.**
● **Push reconnaissance assets ahead of the task force in restricted terrain (i.e, defile operation).**
● **Designate assets to observe counterattack routes into restricted terrain.**

● **Designate NAIs on the flanks of the task force during movement to focus flank security on mobility corridors into the task force flank.**

b. *Maneuver.*

● **Organize for actions on contact.**

● **Designate traffic control points (TCPs) to assist in the control of task force movement from the truck PZ through the LD to the off-load zone.** Consider using MPs and guides from the stationary unit if conducting a forward passage of lines.

● **Conduct forward passage of lines at the LD if required.**

● **Conduct defile operations as required (think through approach, clear, and secure phases).**

● **Be prepared to conduct a passage of lines of a heavy force at the defile.**

● **Consider employing TOW platoon or company (PLT/CO) assets in the advanced guard to provide overwatch, serial security, screening for a task force flank, and to augment heavy forces.**

● **Use established control measures to prevent the concentration of forces during halts and to control movement into the OLZ.**

c. *Fire Support.*

● **Plan fires similar to suppression of enemy air defense (SEAD) fires.** Think of the fires in terms of suppression of enemy anti-truck (SEAT) fires. Plan fires along the task force direction of attack or route and register on charts when possible (such as when in support of defile operations).

● **Plan lethal and non-lethal (if available) fires on enemy positions that are known or templated, or those that cannot be avoided.** Assets typically available to the task force include task force or company (TF/CO) mortars, 105mm artillery, and 155mm artillery fires. Consider the mortar battery concept (consolidating 60mm and 81mm mortars under mortar platoon leader control).

● **Consider brigade-level assets that may be available (non-lethal fires, aviation, 155mm artillery).** Although the deep fight may prevent any support other than organic mortars, these can be used in support of the light task force. Consider integrating attack aviation, Kiowa Warriors and close air support (CAS).

● **Plan a CFZ at the defile and over serials during security halts.** Plan a sensor zone or NFA around task force mortars if firing from within the CFZ.

● **Designate a plan for clearing fires within the defile.**

● **Consider use of illumination (for both deception and navigation) and smoke.**

d. *Mobility/Countermobility/Survivability.*

● **Clear obstacles en route to the DP.**

● **Provide counter-mobility assets (such as MOPMs, mines, and wire) to the flank security force to assist in protecting the task force from an enemy flank counterattack or to assist in breaking contact.**

● **Plan for detection, marking, and bypass of chemically contaminated areas.** Request FOX support from the brigade based on enemy situation.

● **Clear lanes through defiles as required.** Marking and bypass is the preferred method.

e. *Air Defense.*

● **Bound assets forward to provide continuous coverage.**

● **Designate air guards with assigned sectors.** Ensure air guards have night observation devices (NODs) and binoculars.

f. *Combat Service Support.*

● **Plan refuel-on-the-move (ROM) requirements as time and distance analysis dictates.**

● **Consider heavy force refuel requirements.**

● **Ensure medical assets are positioned forward to support defile operations.**

● **Consider vehicle drag/recovery plan.**

g. *Command and Control.*

● *Maintain situational awareness.* Key leaders (chalk leaders or serial commanders) must be in *front* of their vehicles with the following, at a minimum:

☞ **a map with graphics**
☞ **PLGR**
☞ **compass**
☞ **PVS-7s with helmet mount**
☞ **SINCGARs radio with communications card**
☞ **synchronized watch.**
☞ **a copy of the movement table**
☞ **execution checklist**
☞ **OLZ sketches**

● **Chalk leaders must keep soldiers and leaders (including serial commanders) aware of the battle situation at all times.** The serial commanders are responsible for passing intelligence updates, SITREPs, and changes in the situation to the chalk leaders, and chalk leaders are responsible for passing it on to the soldiers in the back of the vehicles.

● **Consider the use of waypoints to facilitate navigation in the desert.** Don't depend solely on the PLGR. Use a compass and odometer (convert kilometers to miles) as a backup.

● **Position the ACP/TAC forward to support defile operations.** Consider split TAC operations with the S3 moving with a supporting effort (such as an advanced guard or rifle company clearing defile) and the task force commander with the main body.

● **Ensure the communications plan provides adequate coverage of the task force during movement from the truck PZ/Main CP to the objective.** Consider the employment of retransmissions (RETRANS), relays, TACSAT, HF, and FM. Develop a trigger for moving the JUMPTOC/TOC forward if communications are lost within the task force.

● *Use control measures to control task force movement* **during the truck infiltration.** Ensure the march table is followed. Be prepared to stop a serial at a certain control measure to prevent the concentration of forces. The task force controls the tempo and momentum of the truck infiltration.

● **Use of non-secure radios (PRC 126/127s) is not allowed until contact with the enemy is made.**

● **Ensure the conditions are set to begin defile operations.**

Loading Plan (parallels with the loading plan for an air assault): The loading phase executes the truck PZ for the truck assault. The loading plan begins when the unit boards the vehicles and ends when the forces are uploaded and the first serial begins movement.

1. Similar to a helicopter PZ, truck assaults do not succeed at the truck PZ but they can start to fail there. The truck PZ should be established and run similar to a helicopter PZ.

2. Consider using the S4 as the truck PZ control officer. Usually, the S3-Air is tied up with the helicopter PZ and is unable to break away to do both.

3. The task force executive officer (XO) should supervise the task force, unless he is the PZ control officer for a task force air assault. Staging and loading are critical events and the XO can best serve the task force on site rather than in the TOC. Each serial (usually a rifle company +) should be a self-contained force that understands its task and purpose at the off-load zone (dismounting point) and during execution of the ground tactical plan.

Staging Plan (parallels with the staging plan for an air assault): Staging establishes the truck PZ and moves the troops there to be loaded. The staging plan begins when the task force receives the warning order (WARNO) from brigade to conduct a truck infiltration (assault) and ends when the unit and trucks are in truck PZ posture and the forces are prepared to load.

1. Vehicle-loading considerations drive selection of the truck PZ and the staging plan.

2. Use the following planning considerations as a basic tactical SOP (TACSOP) checklist for the staging phase of the truck infiltration (assault):

a. *Intelligence.*

● **Choose truck PZs by personal reconnaissance, imagery, and updated maps.**

● **Consider mud, restricted terrain, and mobility characteristics of vehicles when selecting the truck PZ.**

● **Reconnoiter, mark, and time routes from the truck PZ to the LD.**

b. *Maneuver.*

● **Select marshaling areas and truck PZs that allow for dispersion of the serials and security.** The forces securing the trucks during movement can secure the truck PZ.

● **Mark the route from the main supply route (MSR) to the truck PZ.** Establish TCPs if required. Consider sending an element to link up with the trucks and guide them to the task force truck PZ. Request use of MPs if required.

● **Set up and stage in daylight.** Limited visibility staging is difficult (it can be a challenge just getting the vehicles from the brigade support area (BSA) to the truck PZ in the dark).

● **Coordinate for the trucks to arrive early to allow for rehearsals.**

● **Develop a serial/vehicle marking plan so the soldiers understand which vehicles belong to which serial/chalk.** This is especially critical if staging during limited visibility. Remember that colors work poorly when using PVS-7s during limited visibility operations.

● **Plan to guide the trucks and chalks to their staging position.** Maintain positive control at all times.

● **Plan for contingencies such as broken vehicles, hot PZ, lost communications, limited visibility due to inclement weather (high winds/brown out, fog).** Develop a bump plan.

c. *Fire Support.*

● **Plan fires in support of staging and loading operations.**

● **Establish CFZ over PZ.**

d. *Mobility/Countermobility/Survivability.*

● **Remove or mark obstacles in the truck PZ.**

● **Sandbag vehicles for mine protection and remove tarps and bows for 360-degree observation and rapid dismount.**

● **Request and disseminate the obstacle overlay.** Take into consideration a dirty battlefield.

e. *Air Defense.* **Provide air defense coverage of the truck PZ.** Consider use of air defense assets under security force control such as Avengers moving with the advanced guard or flank/rear security forces.

f. *Combat Service Support.*

● **Make provisions for the movement of casualties, supplies, and equipment that will not accompany the unit during the truck infiltration (assault).**

● **Position medical assets to treat injured soldiers during rehearsals and loading.** Ensure that there is one combat lifesaver per vehicle.

● **Position maintenance, recovery, and refueling assets on the truck PZ.**

● **Plan for additional trucks to serve as replacements.** Position the additional trucks on the truck PZ so they do not interfere with loading operations.

● **Conduct Class I (water), III, V resupply as required.**

● **Ensure preventive maintenance checks and services (PMCS) are conducted while in the marshaling area.**

g. *Command and Control.*

● **Establish a truck PZ control officer with appropriate communications and transportation.**

● **If the TOC is not collocated or in vicinity of the truck PZ, position the "jump TOC" with the XO in vicinity of the truck PZ.**

● **Conduct task force rehearsals with the vehicle drivers present.**

● **Ensure chalk leaders inspect vehicles and drivers to ensure readiness.**

● **Conduct a COMMEX with the vehicles, command group, command posts, and brigade.**

● **Ensure chalk leaders prepare manifests in two copies.** One copy is to be maintained by the chalk leader and the other is to be turned in to the truck PZ control officer.

● **Schedule a truck PZ update briefing with key leaders to disseminate the most current intelligence and operational information.**

● **Conduct a commander's communications check following the PZ update brief.**

● **Ensure all chalk leaders in the front seat of the vehicles (platoon leaders or above) have the following, at a minimum:**

    ☞ **a copy of the graphics**

    ☞ **a copy of the movement table**

    ☞ **a copy of the execution checklist**

    ☞ **a PLGR**

    ☞ **a radio**

    ☞ **night observation devices (NODs).**

THE MOVEMENT ORDER

1. Whether it is the backup for an air assault/airborne assault or the primary method of infiltration, truck infiltration (assault) mission planning must be addressed by the task force. If it is not one of the critical events identified by the task force for wargaming in addition to actions on the objective, then it must be addressed at a later time. It is certainly a critical event for the task force.

2. Although there may not be an associated "air mission conference (AMC)" or an "air mission brief (AMB)" with a truck infiltration (assault), the orders process should be conducted in the same way as the AMB with similar products, such as truck PZ/OLZ diagrams, movement table, and so forth. Page H-25 of **FM 101-5**, *Staff Organization and Operations,* shows a movement order format that is a good start point for the truck infiltration (assault) order/annex. The following completed example is suggested as "a way" to format the movement order or annex. The format base is from FM 55-30 and FM 101-5, with extracts from the Ranger Handbook and lessons learned.
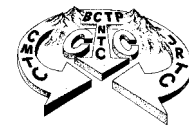
MOVEMENT ORDER_____

References:

Time Zone used throughout the Order:

Task Organization:

1. SITUATION.
   A. Enemy forces.
   B. Friendly forces.
   C. Attachments and detachments.
2. MISSION.
3. EXECUTION.
   A. Concept of Operation (by phase: Staging, Loading, Movement, Off-load, and Ground Tactical, if different from the OPORD).
   B. Tasks to Maneuver Units.
   C. Tasks to Combat Support Units.
   D. Detailed Timings.
   E. Coordinating Instructions.
      (1) Order of march.
      (2) Routes.
      (3) Density.
      (4) Speed. (Include catchup speed.)
      (5) Method of movement.
      (6) Defense on the move (actions on contact).
      (7) Start, release, or other critical points.
      (8) Convoy control.
      (9) Harbor areas.
      (10) Instructions for halts.
      (11) Lighting (light discipline standards).
4. SERVICE AND SUPPORT.
   A. Traffic control.
   B. Recovery.
   C. Medical.
   D. Petroleum, oils, and lubricants.
   E. Water.
5. COMMAND AND SIGNAL.
   A. Command.
      (1) Location of commander and chain of command.
      (2) Location of key individuals or particular vehicles.
   B. Signal.
ACKNOWLEDGE:

                                        NAME (Commander's last name)
                                        RANK (Commander's rank)

OFFICIAL:

APPENDIXES: (at a minimum, movement table, truck PZ/LZ diagrams, communications card, route card (strip map) and execution checklist)

DISTRIBUTION:

_____
(Classification)

THE MOVEMENT TABLE

The following is an example movement table (minor modifications from format in FM 55-30). If classified and issued to TCPs, dates and locations may be omitted. If the table is issued by itself and not as an appendix to a movement order, it should be signed and authenticated in accordance with the unit SOP. If the distribution is the same as the OPORD, headings and endings are not necessary. Headings should be kept to a minimum.

Serial or Movement Number	Chalk or load	Date	Unit/ Formation	No. of Veh	Load Class of Heaviest Vehicles	From	To	Route	Critical Points			Route from Release Point	Remarks
									Ref.	Due (Hrs)	Clear (Hrs)		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)

CONCLUSION

With detailed planning, adequate organization for combat, rehearsals, and sufficient command and control during execution, light task forces can conduct truck infiltration (assault) missions. Light task forces can move through an enemy security zone to a dismount point with sufficient combat power to accomplish its task and purpose. Truck infiltrations (assaults) are not purely tactical road marches. ***They are combined arms combat operations,*** and, as such, must be planned, rehearsed, and executed with input and support from all battlefield operating systems (BOSs).✪

References:
   ARTEP 7-10/20 *MTP*
   The 101st Airborne Division (Air Assault) *Gold Book*
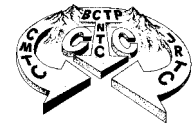   **FM 101-5,** *Staff Organization and Operations*
   FM 55-30, *Army Motor Transport Units and Operations*
   SH 21-76, *Ranger Handbook*
   FM 100-40, *Initial Draft Tactics*
   Observations and Comments from the Field

The Role of the Breach Force Commander

by LTC Robert R. Varela, Senior Brigade Engineer Observer/Controller

Often during offensive operations, the Engineer Commander is assigned the mission of the Breach Force Commander for Task Force and Brigade-level Deliberate Breaches. Sounds like something that an engineer can handle with relative ease, doesn't it? On the contrary, there is considerable debate on whether to assign this mission to an Engineer. Despite the controversy, there are a number of factors for the Breach Force Commander to consider. This article provide some insights helpful hints for the Engineer Commander in case he is called upon to be the Breach Force Commander.

When the Engineer Commander is the Breach Force Commander he is frequently assigned additional vehicles, mainly plow and roller tanks. In some cases, he has Bradleys, smokers and possibly an additional tank or mechanized platoon. The commander has to decide how to incorporate these pieces of equipment into his scheme of maneuver. He must determine how to assign tasks, prioritize missions and command and control his breach force. He must fully understand what the maneuver commander expects him to accomplish. He must also articulate his scheme of maneuver clearly to ensure synchronization with the overall plan.

PLANNING AND PREPARATION

Planning:

A successful operation begins with a successful breach. The successful breach force commander must consider the following items during the Military Decision-Making Process (MDMP):

★ **Personal limitations.** Do not take on missions that you are professionally unprepared to execute. Acknowledge your personal limitations. Brief them to the maneuver commander and battle staff.

★ **Unit capability.** Recognize the capabilities and training proficiency of your unit. Ensure that the planners task the breach force only missions it is capable of executing.

★ **Resource the force.** Make sure the battle staff identifies the support force and the assault force during the MDMP. The staff must task and resource these units to execute their missions.

★ **Know the fire support plan.** Ensure the fire support officer plans for CFZs over likely breach locations.

★ **Rehearsals.** Ensure the staff allows adequate time on the execution time line to conduct a combined arms breach rehearsal. Ideally, this is a mounted rehearsal consisting of a tactical movement followed by a breach on an inert, complex obstacle system. Seek the maneuver commander's support to make this event happen. Historically, deliberate breach operations at the CTCs fail because of the units' inability to synchronizethe support, breach and assault forces.

★ **Develop a comprehensive casualty and vehicle recovery plan.** Request additional medical support and recovery vehicles from the maneuver battalion.

★ **Plan for subsequent breach operations.** Develop a maneuver scheme to keep engineer assets with the lead maneuver units on the objective.

★ **Ensure the planners develop a definitive command and control system that addresses:**
1. What is the trigger to commit the breach force? Who makes the call to initiate the breach?
2. Who is calling for, and adjusting, smoke?
3. Who is controlling indirect fires during the breach?
4. Which force provides local security at the breach?
5. What is the trigger to commit the assault force?

Recently, in a deliberate attack at the Combat Maneuver Training Center (CMTC), an Engineer Commander had the dual missions of Breach Force Commander and leading a night covert breach team. Although this highly motivated and competent individual executed both missions with vigor, he could not apply the necessary attention to both missions. He was unable to fully prepare for either mission. His effectiveness decreased as he became increasingly tired.

Had the task force commander realized the effect of assigning both missions to one individual, he would have more than likely reallocated the tasks and assets so that the engineer commander could assign the covert breach to a subordinate. This would have allowed the commander to focus on his primary mission.

Preparation – Rehearsals:

Remember to apply the following techniques when conducting your own breach force rehearsal:

★ **Rehearse moving to the obstacle.** Often the breach force rehearses actions at the obstacle. But it fails to rehearse the tactical movement that gets the unit from a release point to the obstacle in the correct formation. Practice movement techniques enroute; use the terrain; react to actions on contact with direct and indirect fires.

★ **Make sure everyone knows the conditions for the breach.** Know the conditions that you are establishing for the breach.

★ **Construct an obstacle system that closely resembles the obstacle you expect to breach.**

★ **Use smoke during your rehearsal.** If available, use smoke assets. If smoke assets are not available, use smoke pots and grenades. The closer you replicate the conditions you expect to encounter at the breach the better.

★ **Rehearse calls for fire.** Rehearse the calls for fire if you are assigned indirect fire targets. If the engineer commander is allocated a forward observer (FO) for the mission, ensure the FO participates in the rehearsal.

★ **Rehearse actions on contact with direct and indirect fires.** If chemical use is possible, rehearse in an NBC environment.

★ **Plan for, and allocate for, losses along the way to the obstacle as well as losing forces during the breach.**

★ **Rehearse the casualty and vehicle recovery plans at the breach site.**

★ **Rehearse subsequent breaches with a reduced force.** If time allows, rehearse obstacle reduction.

Ideally, the maneuver battalion conducts a fullup, combined arms rehearsal covering each phase of the operation. It includes contingency and branch plans. In addition to the techniques outlined above, the combined arms rehearsal should also include:

★ **Explain the details of your plan to the maneuver commander and your fellow commanders.** Specify route. Confirm the marking procedures for both near and far markings. Don't forget to articulate the conditions you expect to be set before executing the breach.

★ **Tell it like it is.** If you and your staff have determined that it will take an hour to breach, explain why.

★ **Take your second in command to the rehearsal if possible.** This way, he is in tune with the whole plan in case he has to take over.

★ **Rehearse the breach in detail.** To get a "Go," each participant executes and reports his respective functions in sequence.

★ *Make the going tough!* Creating the conditions for a successful deliberate breach takes time. The support force needs time to position itself to suppress the enemy and obscure the obstacle. The breach force must array vehicles to execute the breach. These need to be rehearsed. Avoid the temptation to make the enemy a "roll-over-and-die" foe.
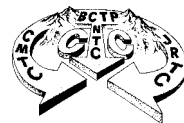
MANEUVER PLANNING CONSIDERATIONS

An often-overlooked fact of life: the breach force commander must develop his own breach force scheme of maneuver to get the force to the breach site. It must be designed within the framework of the battalion scheme. When planning the breach force maneuver scheme, keep the following in mind:

★ **Assign an axis of advance or specific routes as applicable.** If the battalion control measures are insufficient, add internal control measures. Make sure everyone understands the scheme of maneuver including traveling technique (traveling overwatch, bounding overwatch), and the procedure you will use to control direct fires.

★ **Plan alternate routes to the obstacle.**

★ **Develop an indirect fire plan for smoke and artillery.** Although it is the support force's responsibility to call and adjust smoke and indirect fire, the tactical situation often shifts rapidly and the breach force is required to perform these tasks. If you are lucky, you will have an FSO assigned for the operation.

★ **Employ control measures such as Restricted Fire Lines (RFLs), Limit of Advances (LOAs), or phase lines.** Remember you will execute SOSR in the micro or local level, so plan accordingly. Assign support-by-fire positions for your support force.

★ **Identify and assign primary and alternate missions to your forces so they can react as the tactical situation changes.**

★ **Have a plan on how you will reduce the obstacle.** Include the number of lanes required for a successful operation.

★ **Don't forget far-side security and make sure you plan to array your forces on the far side of obstacles in such a manner that you are ready to execute subsequent breaches.**

★ **Make sure that you report obstacle locations and mark bypasses along the way to your main breaching effort.** Often maneuver units bypass obstacles along the axis of attack without reporting them. Trailing units often lose vehicles when they run into these obstacles. It disrupts the formation and slows down the unit's momentum.

The breach site.

★ **Maintain focus on your primary mission -- to breach a lane to facilitate the maneuver force's attack on the objective.**

★ **Avoid falling into the trap of trying to kill all the bad guys.** Let the support force and the tactical commander concentrate on isolating the breach site. Focus on the forces in the immediate vicinity of the obstacle.

★ **Allocate sufficient time in your planning process to ensure that you are fully prepared to breach and mark the obstacle.** This is hard. You will be challenged on getting there, killing the enemy, breaching, marking, conducting subsequent breaches and continuing the attack.

Maneuver Force Commanders expect their Breach Force commanders to be smart, aggressive, versatile, technically and tactically proficient, and independent. The breach commander must understand his commander's intent. He must plan a successful operation without promising too much and delivering very little. The trick is to become an asset and not a liability to the commander. You must also be able to articulate your plan to your subordinates. Do this through your commander's intent by a clear and concise statement of what you want to accomplish.

Breach operations are complex operations. They require a tremendous amount of skill, coordination, and hard work. Hopefully we have provided you with some additional tools and thought-provoking comments that will enable you to be successful if you are ever called upon to clear the way for your maneuver brethren.✪

Coordination Meeting:
How the OPFOR Prepares for the Defense
by LTC James Zanol

This article describes the National Training Center (NTC) Opposing Forces (OPFOR) Regiment's preparation technique for the defense. Known as the coordination meeting, the technique is a very effective tool because it provides:

1. Information to the commander on the status of preparation.

2. All leaders in the unit a common understanding of the enemy, and how each battlefield operating system contributes to the battle.

The coordination meeting most closely resembles the combined arms type using the map rehearsal technique (see **CALL Newsletter No. 98-5,** Mar 98, *Rehearsals*). One difference is that the coordination meeting does not use unit symbols to move according to the scheme of maneuver on the map. The coordination meeting is held after the subordinate units have conducted mounted rehearsals of their actions.

The motorized rifle battalion is the unit used in this example. The following leaders attend this meeting:

OPFOR Attendees	BLUFOR Counterpart
MRR Commander	Commander
MRR Chief of Staff	Executive Officer
MRR Chief of Reconnaissance	S2
MRR Chief of Artillery	FSCOORD/FSO
MRR Chief of Operations	S3
Chief of Radio-Electronic Combat	MI Commander
Air Direction Officer	S3 Air
Chief of Air Defense	ADA Commander
Engineer Commander	Engineer Commander
Chief of Signal	Signal Commander/Signal Officer
MRB Commander	Subordinate Commander
MRC Commanders	Subordinate Leaders
MRR/Combined Arms Reserve Commander	Subordinate Leader
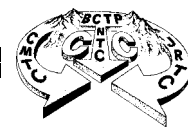
All personnel come to the meeting with the latest status of their units' preparations and a set of common graphics. The Chief of Operations opens the meeting by taking role to ensure all required attendees are present before starting. He provides any updates or changes to the mission, task organization, and critical events. The meeting then follows this agenda:

Chief of Reconnaissance (COR):

Intelligence update. The COR starts his briefing with a recap of all enemy activity. He provides the time, place and action of each enemy contact. Most often when the MRB is preparing its defense, this contact is with Scouts and COLTs that are attempting to infiltrate. He will also brief the location and composition of any assembly areas that Regimental reconnaissance can see.

Enemy Courses of Action. The most likely and most dangerous courses of action (COAs) are briefed. These are the COAs used during the planning process for the mission. If this is not the first battle with the enemy, then the COR will provide information that will modify the COAs based on what the Regiment has learned about how the unit fights.

Regimental reconnaissance observation posts. Finally, the COR briefs the positions of each of the reconnaissance teams currently in sector. He also describes the area that each team has primary responsibility to observe. This brief allows all the leaders in the unit to see where the recon assets are in order to clear fires and make adjustments as the battle progresses. Any gaps in the observation plan between regimental and battalion positions are identified and corrected.
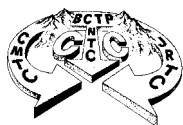
MRB Commander:

Intent/Scheme of maneuver (deep, close, rear). This section is self-explanatory. What is important about the coordination meeting is that specific combat power by position is briefed. All members of the MRB understand the starting positions for all the combat systems in the defense.

Counter-reconnaissance and Deception Plan. The commander then provides the details of two key parts of his plan: counter-reconnaissance, and his deception plan. The MRB Executive Officer, the officer in charge of the counter-reconnaissance force, usually does this part of the briefing. He will brief the location of all observers, confirming the Regimental reconnaissance positions briefed by the Chief of Reconnaissance. He will then give the specific positions his MRB-level observers and the positions of the vehicles that will destroy the enemy.

Specific positions for deception measures are briefed. This includes grids to deception turrets that portray a false position and the time that the heating elements will be lit. The grids to deception obstacles are also disseminated (deception turrets are fiberglass and PVC pipe VISMOD kits heated by a bucket of charcoal, and deception obstacles are a combination of shallow trenches and concertina wire. See **CALL CTC Bulletin No. 98-8, 2QFY98,** Apr 98, *Krasnovian Update: OPFOR TTP).*

Occupation Criteria. The OPFOR will occupy their primary vehicle fighting positions at the last possible moment, just as the enemy is entering the direct fire engagement area. The MRB commander designates this trigger line, usually a phase line, based on the expected movement of the enemy. Vehicles will not occupy their positions until this trigger is met. This protects the force from preparatory fires focused on the prepared fighting positions. The MRB commander will occupy only that part of the defense required by enemy action, again not until the trigger is met. This also protects the force, keeps part of the defense out of contact and make the defense very difficult to see by enemy reconnaissance assets.

Repositioning Plan. A key component of the OPFOR defense is maneuver of combat power to mass against the enemy's main effort. The MRB commander will designate and brief how the repositioning will take place (criteria/trigger, signal, primary and alternate routes). Again, this is described in specific terms, the position combat power starts from and the position to which it will go. The repositioning plan addresses multiple enemy courses of action, giving the MRB commander a ready plan to reposition to meet the enemy wherever his chooses to penetrate.

In addition to lateral repositioning, this plan includes repositioning in depth. This way the commander can build another engagement area in depth if the enemy makes a strong effort in one area.

Repositioning includes all combat power available to the MRB commander. Anti-tank weapons, tanks, and BMPs naturally will reposition. The OPFOR makes a specific effort to reposition infantry positions with their anti-tank capability through the use of dedicated trucks to pick up and move them.

Limited Visibility Plan. There are two parts to the limited visibility plan:

First, those positions that will be occupied during normal limited visibility hours. These positions observe the obstacles and participate in the counter-reconnaissance fight. Generally, one tank and BMP will occupy their positions in each MRC's battle position.

Second, the limited visibility plan is for fighting under heavy obscuration or weather conditions such as ground fog. Those positions are identified and rehearsed. Most often vehicles prepare hasty positions directly on the obstacles and identify alternate positions that provide better observation in the engagement area.

Disengagement Criteria. Much like the occupation criteria, the MRB commander will specify criteria for disengagement of elements of the defense. This includes combat security outposts and ambush positions forward of the MRC positions. Depending on the instructions given to the MRB, criteria may be time delay of the enemy, enemy or friendly losses. The positions these vehicles move to is also briefed.

No move time. The commander then gives the "no-move" time for all elements of the defense. After this time, no vehicles in the defense can move without coordination through the executive officer. This aids target detection, identification, and destruction, and is also an important anti-fratricide measure.

Changes/additions to graphics. Finally, the MRB commander posts any changes or additions to graphics he has made as he prepared his defense. All briefers at the coordination meeting repeat this step. The MRB commander will leave his graphics posted following the meeting so all can copy his changes ("Krasnovian Appliqué").

Chief of Artillery. For an MRB defense, the Chief of Artillery is a regimental staff officer who briefs the parts of the regimental fire support plan that affects the MRB.

Focus of Fires. The Chief of Artillery briefs the focus of fires using target locations and primary observers by both phases of fire and the most likely and most dangerous enemy courses of action. This information is complimented by the Air Direction Officer's close air support (CAS) plan described later.

Illumination Points. The MRB executive officer in charge of security operations coordinates the required illumination missions. Designated across the battlefield, these missions are planned for likely infiltration routes and avenues of approach into the MRB sector during limited visibility. Illumination points are planned for all defenses.

Smoke. Preplanned smoke missions that support the repositioning plan are coordinated with the MRB commander and briefed.

Special Munitions (FASCAM/Chemicals). Artillery-delivered scatterable minefields are planned throughout the width and depth of the battlefield. In coordination with the MRB commander, specific minefields are nominated as priority targets. Again, these targets are nominated based on the expected points of penetration of the enemy, to complete gaps in the obstacle plan or to deny fighting positions from the enemy. At the NTC, the OPFOR has persistent and non-persistent munitions available. The same procedures used for FASCAM missions are used for these targets.

Triggers/Decision Criteria: Specific criteria for shifting the focus of fires, CAS, employment of special munitions are reviewed.

Chief Radio-Electronic Combat (REC) Officer. This officer is the equivalent to the MI Company commander. Fully integrated into the scheme of maneuver and fires, the Chief of REC briefs the details of his plan (**See CALL CTC Bulletin No. 99-3,** *1QFY99,* Jan 99, *OPFOR Electronic Warfare: More than Just Jamming).*
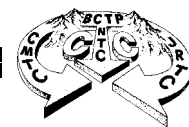
Intercepts/DF Hits: The Chief of REC reviews the intercepts and relevant information his assets have collected throughout the defensive preparation. He also reviews the direction-inding lines of bearing, intersections, and fixes collected to date. He, along with the Chief of Intelligence, assess what enemy forces are at those locations. He then provides specific information on his assets.

Collectors:
➡ **Positions.** Starting locations, repositioning routes, and subsequent locations.
➡ **Collection Priorities.** The SOP is to command and control, provide reconnaissance, and fire support frequencies. Chief of REC will brief any changes.

Jammers:
➡ **Positions.** Starting locations, repositioning routes, and subsequent locations.
➡ **Jamming Priorities** (by phase).

Air Direction Officer. The ADO is the equivalent of the S3 Air. Responsible for coordinating army aviation and air force support, the ADO works in close coordination with the MRB commander and Chief of Artillery.

CAS Focus: Like the Chief of Artillery, the ADO briefs the initial plan for the focus of CAS by phase of fires. Typically, the ADO and FSO have deconflicted CAS and artillery fires by time and or space. This briefing includes:

➡ **Station Time for Air.**
➡ **Number of sorties.**
➡ **Attack helicopters. Key information on the use of attack helicopters.**
➡ **Station Time.**
➡ **"DRT Sweeps"/Air Battle Positions.** A critical action to protect the force is deliberate search and attack patrols by OPFOR attack helicopters. The ADO briefs the time periods for the "sweeps" and the focus for search. He develops the focus areas through coordination with the Chief of Intelligence and the Chief of Radio Electronic Combat. These officers combine their scout reports and EW intercepts to provide possible scout and COLT locations. The ADO also points out the likely air battle positions that OPFOR attack helicopters will use during different phases of the battle. Therefore, all defenders know when and where *SOKOL* (the Russian acronym for "Aviation") will appear on the battlefield, reducing the likelihood of fratricide.

Chief of Air Attack. The Chief of Air Attack plays a crucial role in force protection particularly when the enemy has attack helicopters. His action provides freedom of maneuver for the defense. The air attack assets maneuver aggressively around the battlefield, making situational awareness across the defense a challenge. This highlights the importance of a common understanding of the air attack plan.

Intent for Air Defense Coverage: The Air Attack commander states his intent. This includes his assessment of the major air avenues of approach for fixed- and rotary-wing aircraft. He will also list those areas that are likely air battle positions for attack helicopters. This information gives everyone the general concept for air attack operations. The commander will maneuver his assets across the battlefield to aggressively counter air actions. He briefs the starting locations for his air attack assets:

Position of ADA Assets:
➜ **ZSU-23-4.**
➜ **SA-18.**
➜ **SA-8.**
➜ **SA-9.**

Focus of Fires: This is the likely air avenue of approach and air battle positions, allowing all weapons to orient fires.
➜ **ADA Assets.**
➜ **Maneuver Units.** A key feature of OPFOR operations is all-arms air attack. Direct fire weapons do much of the destruction of enemy attack helicopters: tanks, BMPs, AT5s, even RPGs and heavy machineguns.

Anti-Desant Force: Reflecting the aggressive nature of the OPFOR, the anti-*Desant* force is another feature of air attack. Composed of command and control BRDMs with mounted machine-guns, these vehicles will rapidly converge on helicopter activity in sector, in the manner of a QRF to destroy the equivalent of a Threat Level I or II. The air attack commander briefs:
➜ **Composition/location.** The vehicles in the force and their starting locations.
➜ **Scheme of Maneuver.** Likely landing zones or air battle positions and routes used to attack them.
➜ **Communication nets.** This force will use a designated frequency to keep the MRB and regimental command frequencies free for the defense.

Engineer: The engineer commander gives all leaders a current status of the engineer preparation of the battlefield in one of the critical elements of the briefing.

Vehicle Fighting Positions. First, the status of fighting positions by battle position. The number, type and proofing of vehicle fighting positions are briefed.

Obstacle Preparation. The engineer commander gives a percentage of completion for:
➜ **Horizontal:** Task, purpose, type, location and percentage complete for minefields.
➜ **Vertical:** Task, purpose, type, location and percentage complete for wire obstacles, tank ditches or berms.

UMZ/MOD. Scatterable minefields available to the MRB commander to reinforce or complete obstacle preparation, these minefields are briefed to include:
➜ **Target Locations:** Listed by target number, the minefield start and end points. Additionally, time required for the UMZ/MOD to move from their hide positions to the start point is briefed. Usually, the UMZ/MOD is positioned in the vicinity of the primary target planned by the MRB commander. This information leads to the next piece of information.
➜ **Triggers:** Coordinated between the MRB commander and the engineer commander, all personnel are briefed on the execution criteria for all scatterable minefields.

Chief of Signal:
Like all other briefers, the Chief of Signal briefs the specific grid locations where his retransmission vehicles will be positioned. He confirms the frequencies for retransmission by net. In the defense, retransmission is generally used to talk across corridors for repositioning units and for regimental reconnaissance positions (see **CALL** *News from the Front!,* **May-Jun 98,** *NTC Opposing Force (Scout-Command and Control) TTP*).

He next confirms the Battle Command Time and frequencies. This is a pre-planned frequency change made usually 30 minutes prior to the defend not later than (NLT) time or at another designated time.

Finally, the Chief of Signal will brief the preplanned frequency changes. While tedious and a restatement of SOI data, this step ensures that all personnel have the same jump frequencies for both regiment and the MRB.

MRB Commander. The MRB commander closes the meeting by reviewing his maintenance status and identifying any assistance he needs from the Regimental Staff. The Regimental Chief of Staff can then focus maintenance resources on

the critical problems of the MRB. All commanders present (Engineer, Air Defense, Anti-tank, combined arms reserve) also raise their maintenance issues.

Finally, the MRB commander voices any concerns or issues he has with the conduct of the defense. With all commanders present, the Regimental commander can then reallocate resources or direct changes that address those concerns.

Regimental Commander's Guidance: An outline of the coordination meeting process presented in the article is provided below.

Chief of Reconnaissance (COR)
 Intelligence update.
 Enemy Courses of Action.
 Regimental reconnaissance observation posts.
MRB Commander
 Intent/Scheme of maneuver (deep, close, rear).
 Counter-reconnaissance and Deception Plan.
 Occupation Criteria.
 Repositioning Plan.
 Limited Visibility Plan.
 Disengagement Criteria.
 No move time.
 Changes/additions to graphics.
Chief of Artillery
 Focus of Fires.
 Illumination Points.
 Smoke.
 Special Munitions (FASCAM).
 Triggers/Decision Criteria.
Chief Radio-Electronic Combat
 Intercepts/DF Hits.
 Collectors.
  Positions.
  Collection Priorities.
 Jammers.
  Positions.
  Jamming Priorities (by phase).
Air Direction Officer
 CAS Focus.
 Station Time for Air.
 Number of sorties.
 Attack helicopters.
 Station Time.
 DRT Sweeps/Air-Battle Positions.

Chief of Air Attack.
 Intent for Air Attack Coverage.
 Position of ADA Assets.
  ZSU-23-4.
  SA-18.
  SA-8.
  SA-9.
 Focus of Fires.
  ADA Assets.
  Maneuver Units.
 Anti-*desant* Force.
  Composition/location.
  Scheme of Maneuver.
  Communication Nets.
Engineer.
 Vehicle Fighting Positions.
 Obstacle Preparation.
  Horizontal.
  Vertical.
 UMZ/MOD.
  Target Locations.
  Triggers.
Chief of Signal.
 Retransmission.
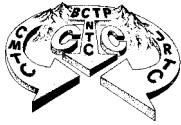 Battle Command Time and Frequencies.
 Jump Frequencies.
MRB Commander.
 Maintenance status.
 Concerns/issues.

SUMMARY

The coordination meeting is particularly important for the MRR Chief of Staff and the MRR jump TOC. Under the direction of the Chief of Staff, these personnel are responsible for the synchronization of all systems available to the regiment. Additionally, the Chief of Staff and the Chief of Artillery must clear fires. The information provided at the coordination meeting ensures that they know the location of all MRR soldiers and equipment in sector. Their full understanding of the friendly and enemy courses of action allows them to make timely recommendations for repositioning, use of reserves, and the combined arms reserve.

The coordination meeting is a comprehensive review of all aspects of the defense. Attended by all leaders in the defense down to the MRC/platoon leader and, in some cases, squad/section/TC sergeant level, the coordination meeting provides an unsurpassed common understanding of how the defense will be fought.✪

Wargaming – *The DS Battalion Way*

by MAJ Dewey A. Granger, O/C Vampires Team

Chapter 5 of FM 101-5 describes in detail the actions for conducting wargaming for all types of operations. The steps and method apply to virtually all organizations. However, the specific techniques used by each combat arm differ slightly based on capabilities and missions. This article presents a method of wargaming tailored to the unique aspects of DS field artillery battalion operations. It does not merely repeat what is contained in FM 101-5. Rather, it presents a logical list of detailed steps that may be used by FA units and staffs to augment doctrine.

Proper course of action analysis in the DS battalion is fundamental to conducting successful combat operations. Wargaming allows us to maximize combat power at key points on the battlefield by synchronizing all combat elements. It enables us to better anticipate battlefield events and focus efforts on key enemy actions and high payoff targets. The most important outcome of wargaming, however, comes as the staff achieves a common vision of the battlefield. Each staff member knows the plan and his role in achieving success.

What is my lane?

All too often, members of the DS battalion staff are challenged to understand their roles in the wargaming process. They do not fully understand the parameters, or left and right limits, under which they are expected to represent information. Establishing parameters enables each member of the team to concentrate their efforts and expertise during wargaming. This further permits specialization of work whereby each team member is able to focus his efforts on one area of concern. It is this specialization that enables a fluid and streamlined approach to any planning process. The team asks questions and poses issues. Appropriate staff personnel address each challenge with a quick, well-understood recommendation.

Staff members must become the experts in their area's planning factors. They must answer all questions regarding every task in their lane quickly avoiding unnecessary delay during the process.
- ➤ **What is the task?**
- ➤ **What factors are associated with each task?**
- ➤ **What is the cost in time?**
- ➤ **What additional resources are required to achieve each factor linked to each task?**

Battalion Commander. The commander drives the wargaming process by issuing clear and concise guidance and instructions. He directs, rejects, and/or approves courses of action. Additionally, he gives specific focus to the second-in-command.

Battalion Executive Officer. When assigned, second-in-command is the XO's primary role during the FA-MDMP. He focuses his efforts on achieving staff synchronization and commander's intent by ensuring that all staff actions are coordinated. The XO and the S4 are the primary integrators of CSS into the plan. The XO resolves all conflicts and makes decisions when necessary. The most important role? The XO carries the "big stick," monitoring each staff member's actions ensuring that they stay within the parameters of the wargaming SOP script.[1]

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[1]May be accomplished by the S3 of the XO is not designated as the 2IC.
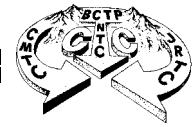
Battalion S3. The S3 ensures that each and every operational aspect of the plan is considered and war-gamed. He selects the recording and wargaming method that will be used throughout. In his role as blue force FA commander, the S3 ensures that priorities are established and verifies that the DS battalion commander's intent is being met with each phase and/or EFAT.

Battalion FDO. The battalion FDO monitors and integrates all aspects of tactical and technical fire direction into the wargaming process. His efforts are concentrated on the delivery of fires. The FDO must fully understand the scheme of fires. He recommends the *best* method of delivery within the given constraints of each EFST. For example, the delivery of smoke in support of maneuver operations can be accomplished through several means: platoon, battery, or battalion. Therefore, the FDO must look at the resources required to accomplish each task and assign the most effective and efficient means of delivery.
➤ **Ammunition Consumption.**
➤ **Effects.**
➤ **Scheme of Fires.**
➤ **Targets.**
➤ **Geometry.**
➤ **MET.**
➤ **Firing Safety.**
➤ **Time Standards.**
➤ **Delivery Conflicts.**
➤ **Special Munitions.**
➤ **Lot Management.**

Battalion S2. The S2 is the enemy commander. He tries to win the wargame using techniques as they would be applied by the threat commander. He takes known enemy capabilities and tactics, then tries to defeat the artillery plan. What is more, he also takes on all aspects of radar operations in the event that the radar technician is not available.
➤ **Effects of weather and terrain on the operation during each phase.**
➤ **Expert on threat Indirect/Direct Fire capabilities.**
➤ **Determines and executes predictive analysis.**
➤ **Enemy effects factors.**
➤ **Threat to all elements during each phase (CAT, FAT, Btrys).**
➤ **Creates Battalion R&S Plan.**

Battalion Assistant S3. The Assistant S3 is the primary blue maneuver commander during the wargame. He completely understands all phases of the maneuver plan and anticipates present operational needs of the firing batteries. He understands the scheme of fires and anticipates delivery system actions with regard to survivability and movement. He is responsible for the fluid operation of the TOC. And, finally, Assistant S3 is synch matrix recorder during wargaming.
➤ **Monitors EEFI and FFIR.**
➤ **Develops Survivability Move Criteria with the DS Battalion S2 by phase.**
➤ **Establishes tactical and survivability moves throughout the operation.**
➤ **Establishes move and emplace times.**

Battalion S4. The S4 is the primary integrator of logistics into the plan. He covers all areas of logistics except ammunition.

➤ **Sets and identifies resupply triggers.**
➤ **Develops time standards for LOGPAC, R3SP, and all resupply operations.**
➤ **Identifies active AXP and EPW times and locations.**

Battalion Ammunition Officer. The BAO's primary function is to ensure that the proper amount and mix of ammunition is on hand to accomplish all EFATs. He should apply factors developed through previous training exercises to anticipate conflicts, and generate potential solutions.

➤ **Expert on ammunition operations.**
➤ **Develops and maintains movement and resupply times for all Class V.**
  ➥ **FAT to CAT.**
  ➥ **CAT to Batteries.**
  ➥ **Upload and Download times.**
➤ **Recommends and maintains standard PLS configurations and CCLs.**
➤ **Maintains current ammunition count at all locations (CAT, FAT, PLS, Cache).**

Battalion Signal Officer. The BSO's primary function is to integrate and maintain all aspects of communications. He should also concern himself with preferred future TOC locations.

➤ **Develop communication site overlay.**
➤ **TOC locations (current/proposed).**
➤ **Retransmission locations (current/proposed).**
➤ **COMSEC changeover.**
➤ **MIJI countermeasures.**

Battalion Reconnaissance/Survey Officer. The RSO's primary duty is to ensure that all aspects of survey including mortars and FISTs are integrated into the plan. He must keep tabs on all required items of survey control. The RSO must indicate areas requiring survey resources throughout the depth of the operation. He also records unresolved issues for later consideration by the commander.

➤ **Movement factors.**
➤ **Emplacement times.**
➤ **Update/30-day bias times and factors.**
➤ **All survey and SCP locations.**
➤ **All survey requirements (Mortars, Cannon, Rocket, Target Area).**
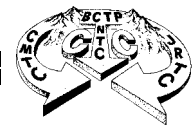
Radar Technician. When available, the Radar Technician integrates all aspects of radar into the COA analysis process. The preferred method is to have the radar technician conduct troop-leading procedures with his section. However, a strong section sergeant can free the Technician to participate in the planning process. In many cases, this can provide added benefits and enhance synchronization.[2]

➤ **Assesses the threat to the radar in conjunction with the S2.**
➤ **Recommends threat countermeasures.**
➤ **Tracks total radiation time.**
➤ **Develops movement and reposition times.**
➤ **Ensures zone deconfliction.**
➤ **Recommends optimal positioning.**
➤ **Recommends movement triggers.**

Battalion Chemical Officer. The Chemical Officer assesses the enemy chemical threat and recommends countermeasures. With his background in enemy chemical delivery systems and threat assessment, the Chemical Officer is oftentimes the logical choice to assist the Battalion S2 in the preparation of his IPB products. This also enhances the Chemical Officer's understanding of the enemy plan.

➤ **MOPP status.**
➤ **Current CDM.**
➤ **Decontamination site locations (actual/proposed).**
➤ **Factors associated with decontamination (travel time, setup, time to decontamination).**

Wargaming Steps

FM 101-5 provides an eight-step framework for wargaming. DS battalion wargaming follows the same step approach. But the techniques are unique to artillery operations.

Step 1. *Gather the Tools.*

Without question, this is the most misunderstood, yet the most important, step in the entire process. Either the 2IC, or the battalion S3, directs the staff to gather the necessary tools, materials, data, and to select the area for the wargame. Additional tools are required for DS battalion wargaming that are not listed in FM 101-5. The staff cannot proceed without the full tool kit because course-of-action analysis will more than likely stray from its primary focus and become ineffective.

➤ **Tools.**
➤ **Current staff estimates.**
➤ **Event template.**
➤ **Decision support template.**
➤ **Recording method.**
➤ **Completed COA overlays.**
➤ **Enemy and friendly unit symbols.**
➤ **Area of operations map.**

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[2] May be accomplished by the DS Battalion S2 depending on his level of experience and expertise. This allows the Radar Technician to conduct troop-leading procedures.
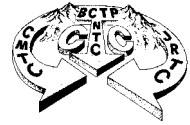
Additional Tools

➤ **Wargaming script.**
➤ **Survivability matrix.**
➤ **Movement time-distance analysis.**
➤ **Met schedule.**
➤ **JMEMs affects matrix.**
➤ **Battalion standard firing time standards.**
➤ **Ammunition tracking chart.**
➤ **Enemy capabilities matrix.**
➤ **Communications site overlay.**
➤ **Radar survivability matrix.**
➤ **Overlays.**

Area Setup. The task of gathering the tools is more than just getting together a series of checklists and overlays. One of the most important tools is the area for execution of the wargame. Under the guidance of the assistant S3, the operations sergeant should take on the task of preparing the area. As a battle staff graduate, he has the background in MDMP to ensure that the battalion standards are met (see Figure 1).

Figure 1. Area Setup.

Map Board Setup. Another important tool is the wargaming map, sketch, or terrain model. Accuracy of information is paramount, regardless of the map technique. Units should use maps, sand tables, or other tools that accurately reflect the nature of the terrain. The map segment of terrain should reflect the Area of Operations as closely as possible.[3] As a minimum, units must ensure that the information below is somehow reflected on the wargaming map, sketch, or terrain model (see Figure 2).

➤ **Maneuver graphics.**
➤ **Obstacles.**
➤ **Position areas.**
➤ **Targets.**
➤ **Intelligence.**
➤ **Course of action (each).**
➤ **Friendly and enemy icons.**
➤ **Annotation of EFST and EFAT.**
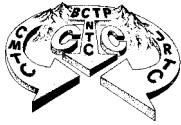
GATHER THE TOOLS
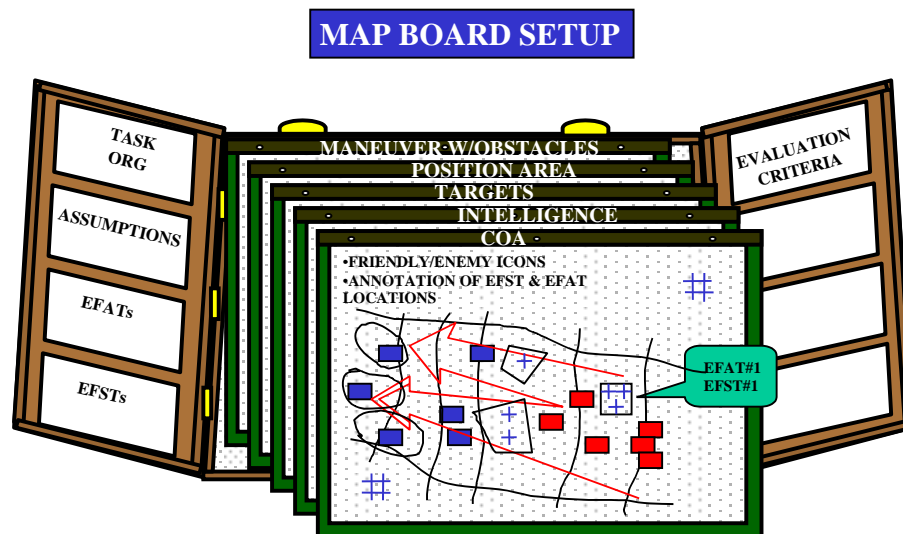
Figure 2. Map Board Setup.

Step 2. *List all Friendly Forces.*

The unit should list all organic and attached forces to include: COLTs, FISTs, Radar. These are displayed on a wingboard chart.

_____
[3] Chapter 5, FM 101-5.

Step 3. *List all Assumptions.*

An effective method is to list the data on wingboard charts along with any additional specified and implied tasks that were embedded in the order. As these are updated, or completed, they should be checked off.

Step 4. *List EFSTs and EFATs.*

Once again, the preferred method is to display these on a chart containing both the EFST and associated EFAT. These items are important and must be accurate, as the staff will use them later for reference purposes.

Step 5. *Determine Evaluation Criteria.*

If the staff is wargaming more than one course of action, then the criteria given in commander's guidance should be determined and posted before the start of wargaming.

Step 6. *Select the Wargame Technique.*

The wargame methods in FM 101-5 assist in developing the area of interest and all enemy forces affecting the outcome of operations. These techniques focus on the sequential outcome of events, avenues of approach, critical areas, or critical events. DS Battalion EFSTs are listed in order through the scheme of fires. Since the tasks are sequential by design in the scheme of fires, the natural progression is to war-game each EFST/EFAT as it occurs. This continues until the completion of the scheme of fires and maneuver.

Step 7. *Select a Recording Technique.*

Because the EFST/EFATs occur across time and space in relationship to enemy, the best way to record results is the synchronization matrix (Figure 3, page 61). The staff can easily translate it into plans and orders. The staff can incorporate additional information into the matrix without significantly altering the original details. And it serves as a means of predicting critical events and enemy actions,thereby decreasing the probability of losing focus throughout the battle.
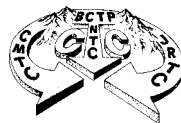
Example Synchronization Matrix

PHASE/TIME				
ENEMY COA	EVENT			
	THREAT TO BTRY			
INTEL	NAI			
	TAI			
	COL			
MANEUVER	MISSION			
	SCHEME			
	PRI/FOCUS			
EFST				
EFAT				
FIRE PLANS	NAME			
	TARGETS			
ALPHA	LOC/AOF			
	EFAT (TPME)			
	TGTS			
	MOVE TRIGGER			
	SPEC INSTRUCT			
BRAVO	LOC/AOF			
	EFAT (TPME)			
	TGTS			
	MOVE TRIGGER			
	SPEC INSTRUCT			
CHARLIE	LOC/AOF			
	EFAT (TPME)			
	TGTS			
	MOVE TRIGGER			
	SPEC INSTRUCT			

REINFORCING	LOC/AOF			
	EFAT (TPME)			
	TGTS			
	MOVE TRIGGER			
	SPEC INSTRUCT			
RADAR	LOC/AZ			
	ZONES			
	CUE GUIDANCE			
	ACCUM RAD			
	MOVE TRIGGER			
SURVEY	LOC			
	MISSION			
	PRI/FOCUS			
CSS	I			
	III			
	V			
	MAINT			
	MED			
	CAT			
	FAT			
C^2	TOC			
	CDR/XO/S3			
	LOC			
	RETRANS			
OTHER	SURV MOVE			
	CRITERIA			
	CHEM			
	ADA			
	MOV/CM/SURV			
DECISION PTS				
NOTES				

Figure 3. Example Synchronization Matrix.
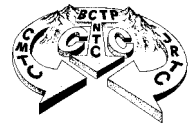
Step 8. *War-game the Results.*

To conduct the wargame and fully analyze each essential task, the S3 must prepare a wargaming SOP prior to deployment. The SOP must contain an acceptable synch matrix. Use the brigade matrix to fill in the key events before the start of the wargame. This allows the staff to synchronize events with the brigade. Next, the S3 must develop a usable wargame script (see Figure 4 on page 63). This script brings order to what has can easily become chaos. It allows subordinates an opportunity to integrate their operational aspect into the plan. As a final touch, you need staff wargame checklists. Checklists not only aid memory, but also focus staff members' efforts on a particular portion of the wargame tasks.

WARGAME SCRIPT
OFFENSIVE OPERATIONS

MANEUVER PHASE	A/S3
ACTION --->REACTION--->COUNTERACTION (FRIEND OR ENEMY)	
MANEUVER	S3
ENEMY COA	S2
INTELLIGENCE	S2
EFST AND EFAT	S3
FIRE PLANS	FDO
FIRING ELEMENTS (BATTERIES & REINFORCING UNITS)	S3
RADAR	S2/TECH
SURVEY	RSO
CSS	BAO/S4
C^2	CESO
OTHER (SURV MOVE CRITERIA, CHEM, ADA, ENG)	A/S3, CHEMO, A/S3
DECISION POINTS	S3
REVIEW NOTES/ISSUES	RSO

ACTION - EVENTS INITIATED BY THE SIDE WITH THE INITIATIVE; NORMALLY, THE OFFENSIVE FORCE.
REACTION - THE OTHER SIDE'S ACTIONS IN RESPONSE TO THE FIRST.
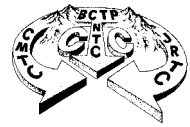*COUNTERACTION* - THE FIRST SIDE'S RESPONSE TO THE REACTION.

DEFENSIVE OPERATIONS

MANEUVER PHASE	A/S3
ACTION --->REACTION--->COUNTERACTION (FRIEND OR ENEMY)	
ENEMY COA	S2
MANEUVER	S3
INTELLIGENCE	S2
EFST AND EFAT	S3
FIRE PLANS	FDO
FIRING ELEMENTS (BATTERIES & REINFORCING UNITS)	S3
RADAR	S2/TECH
SURVEY	RSO
CSS	BAO/S4
C^2	CESO
OTHER (SURV MOVE CRITERIA, CHEM, ADA, ENG)	A/S3, CHEMO, A/S3
DECISION POINTS	S3
REVIEW NOTES/ISSUES	RSO

ACTION - EVENTS INITIATED BY THE SIDE WITH THE INITIATIVE; NORMALLY, THE OFFENSIVE FORCE.
REACTION - THE OTHER SIDE'S ACTIONS IN RESPONSE TO THE FIRST.
COUNTERACTION - THE FIRST SIDE'S RESPONSE TO THE REACTION.

Figure 4. Wargame Script.

Synchronization Matrix Technique. Using the synchronization matrix for artillery battalions is the same as for maneuver units. But the techniques and critical events differ slightly. Fire support critical events are identified as Essential Fire Support Tasks (EFSTs) which are then translated into delivery system critical events known as Essential Field Artillery Tasks (EFATs). The EFATs then become the critical events by which we focus our wargaming.

The wargame must consist of a set of steps that, when used in conjunction with the synchronization matrix, lead to detailed. logical solutions to delivery system organization and problems. First, the staff wargames each EFAT as executed in the scheme of fires using the synchronization matrix as a guide. The scheme of fires gives a detailed logical sequence of all EFSTs. As each EFST/EFAT is executed chronologically, the staff covers every aspect until reaching endstate on that EFAT. If two or more EFSTs/EFATs are conducted simultaneously, then both are war-gamed simultaneously to resolve potential conflicts during execution. Next, the staff works completely down the matrix with each staff member stating his actions and/or issues in accordance with his checklist. Once reaching the bottom of the matrix, they revisit any issues for resolution. Finally, the staff moves to the next column and/or EFAT.

Logical Steps:
1. War-game each EFAT.
2. Endstate complete.
3. Two or More Simultaneously.
4. Down the Matrix.
5. Issues.
6. Next.

Wargame Checklists. Use a series of checklists to ensure that each staff member stays in the proper lane. Checklists also provide new staff members with an orientation into the unit's process. They also facilitate the process during abbreviated planning timelines.

S3 Section
Prepare friendly situation.
    Current unit locations.
    Current friendly graphics.
Identify/Record key decision points.
Make adjustments to selected COAs as needed.
Record issues/RFI/Synch Matrix.
Identify movement triggers.
Anticipate resupply triggers.
Record requests for additional support.

Bn XO/S4
Personnel.
    Refine casualty estimate.
    Verify MEDEVAC routes (clean and dirty).
    Verify BAS/AXP/EPW locations.
    Verify anticipated replacements.
Logistics.
    Verify CL III and resupply triggers.
    Develop LRP and/or R3SP locations and times.
    Develop ALOC movement plan and trigger.
Maintenance.
    Verify evacuation plan.
    Verify UMCP location/movement plan/triggers.

BAO
Verify ammunition plan.
PLS locations.
CCLs.
Ammunition at CAT/FAT.
Resupply timing.
Resupply triggers.

CESO
Verify TOC locations (current and proposed).
Verify TOC movement plan and trigger.
Verify retransmission plan and location.
Synchronize signal plan.

Chemical Officer
Verify decontamination sites and water locations.
Verify sanator location and maintenance status.
Synchronize decontamination plan with operations.

FDO
Verify best tactical and technical fire direction procedures.
Verify solution for each target.
Verify ammunition requirements with the BAO.
Verify shift times.
Verify five requirements for accurate predicted fire.

RSO
Verify all SCP requirements and recommend priority.
Verify SCP locations.
Verify survey plan.
    Times.
    Locations.
    Unit.
    Instructions.

CONCLUSION

Detailed analysis of courses of action ensures that we focus the effort of all combat means. It allows commanders and staff to share a common vision of the battlefield. It presents subordinates with well-defined tasks and a clearly identified purpose for each task. It provides the synchronized "how" to the mission statement. Wargaming is difficult, but all other options are unacceptable.✪
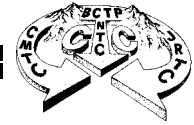
FIRE SUPPORT INTEGRATION AND THE TASK FORCE COMBINED ARMS REHEARSAL
by LTC Harry C. Garner, Timberwolf 27, Task Force Fire Support O/C, CMTC, Hohenfels, GE

> *"The combined arms rehearsal is required to synchronize all BOSs before combat operations. FS points that should be highlighted during the rehearsal include:*
> - *Synchronization of the FS Plan with the Scheme of Maneuver.*
> - *Target execution responsibilities, to include primary and backup observers and their engagement areas.*
> - *Artillery and mortar positioning and movement plans.*
> - *Verification of TA plan.*
> - *Fire support coordination measures.*
> - *Close air support.*
> - *Verification of windows to mass battalion fires."* **(FM 6-71)**

TF Tiger's deliberate attack on brigade Objective Shasta is not going well. OBJ Shasta, occupied by a reinforced MRC of the 12th MRR, is divided into three TF objectives, Betty, Jane and Jill. The lack of effective fires is severely jeopardizing the operation. In retrospect, this is not surprising since fires were not discussed in detail at the TF Combined Arms Rehearsal (CAR). The TF commander could not even remember if a fire support rehearsal was conducted prior to the attack.

The smoke planned to screen Team Alpha's movement from LD to Attack Position BOB did not occur, exposing it to highly effective OPFOR fires from the CSOP. Three M1s and four M2 BFVs were destroyed before it arrived in BOB. Reports indicated its FISTV was destroyed just forward of the LD. The FIST was the primary shooter for the screening smoke. The CAR did not address alternate shooters for the planned smoke mission. No priority targets were planned. Priority of fires was never clearly established.

Team Bravo fared no better. As the breach force attempted to reduce and secure a series of complex obstacles forward of the objective, it relied heavily on the effective and synchronized use of TF mortars and DS artillery fires to suppress and obscure the obstacle. However, as the breach force moved into position, TF mortars were out of range. Artillery smoke and suppressive fires were unavailable because the DS FA Battalion was emplacing brigade-directed FASCAM minefields in an effort to delay the Combined Arms Reserve. The breach team suffered horrendous causalities while exposed to an unmerciful barrage of indirect fires and well-aimed direct fires from enemy over-watch positions. The late execution of a CFZ over the breach area contributed little to force protection. After a valiant effort, Team Bravo secured and opened a lane through the obstacle belt.

After suffering heavy casualties to indirect fires, Team Charlie, tasked with destruction of the northern MRP on OBJ Betty, assaulted through Bravo. Late triggers and delays in the clearance of fires resulted in ineffective fires on the objective. The general lack of knowledge and understanding of the TF fire support plan was painfully obvious. Control of fires on the objective, both direct and indirect, was not discussed in detail during the Combined Arms Rehearsal (CAR). This critical oversight significantly contributed to the quickly deteriorating situation.

Team Delta, tasked with the destruction of the center MRP on OBJ Jane and the remnants of the southern MRP on OBJ Jill, was floundering. It was apparent that Shasta would not be secured and the Combined Arms Reserve would soon arrive to reinforce the determined MRC. Combat power for the TF is less than 15 percent. What had gone wrong?
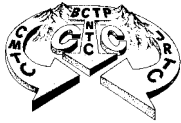
This illustration is dangerously familiar to the Observer/Controllers (O/Cs) at the CTCs. Units fail to execute critical task force targets at the proper time on the battlefield. Quite often, this failure threatens to unhinge the entire brigade operation. There are numerous reasons: no clear essential fire support tasks, poor IPB, poor target location, poor observer planning, and loss of primary observers during the battle. The list goes on and on.

Each reason is a "symptom" of the bigger problem. The overarching cause of poor, unsynchronized fire support is the lack of a detailed Combined Arms Rehearsal (CAR) which fully incorporates the task force fire support plan.

> *"The maneuver course of action and supporting fire plan should be analyzed in anticipation of the enemy course of action that might occur in actual execution of the plan...The rehearsal improves responsiveness of fires and the synchronization of all the maneuver commanders' resources for the battle…The rehearsal (fire support) conducted by only the support personnel is limited in that the success of the rehearsal and benefits derived from it depend on how well the FSCOORD/FSO conducting the rehearsal know the maneuver commander's concept of operation."* **(FM 6-20-40)**

Here is a method that produces a truly integrated Combined Arms Rehearsal where coordination and synchronization of the TF fire support plan with the scheme of maneuver are primary objectives. Time constraints associated with the mission cycle (routinely 36-hour preparation periods) are a very real limitation on the TF commander's ability to conduct face-to-face coordination with his subordinates. The TF CAR is the only viable opportunity for the commander to gather his entire staff, company commanders and other key personnel in one central location to rehearse the upcoming mission. Given the extended travel distances, weather and environmental factors (particular winter operations), and the need to conduct individual and subordinate unit preparation, it is unrealistic to expect commanders, and staff to remain following the CAR for separate, lengthy and often redundant combat support rehearsals.
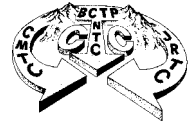
The integration of the critical aspects of the TF Scheme of Fires, *as well as other BOSs,* **should be incorporated into the CAR, thus realizing a true combined arms rehearsal**.

The integration of fire support into the true CAR requires commanders and FSOs to actually brief and rehearse their specific fire support responsibilities. The result is a greater understanding of the complete, integrated scheme of fires. A successful CAR precludes the need for a lengthy, relatively pointless fire support rehearsal. Pointless because, more often than not, critical leaders and staff are not present at the fire support rehearsal. A detailed radio (FM) TF Fire support rehearsal, facilitated by either the TF Executive Officer or the S3, is critical to the final synchronization of the TF fire support plan. This rehearsal must include all players involved in the execution of the fire plan. **The soldiers who execute it must understand the fire plan.** This means maneuver shooters, FIST, mortars and all others involved with the plan must participate. The details of the FM fire support rehearsal will not be discussed in detail here.

Using the rehearsal format in **FM 101-5,** *Staff Organization and Operations,* and **FM 71-3,** *The Armored and Mechanized Infantry Brigade,* this article offers TF commanders a method for integrating the TF fire support plan into the TF CAR. These recommendations are fully applicable to abbreviated CARs when only specific actions and critical events are rehearsed. Commanders should incorporate these recommendations as **minimum requirements** to the unit CAR SOP.

> *"The most important task force rehearsal is the combined arms rehearsal. This rehearsal must integrate fully the fire support plan...If time permits, the TF should conduct a fire support rehearsal."*
> **--(CALL CTC Quarterly Bulletin No. 96-4, 2QFY96,** Mar 96, ***Indirect Fires and the Combined Arms Team.***)

CONDUCTING THE CAR

> *"The Combined Arms Rehearsal is normally conducted by a maneuver headquarters and performed after subordinate units have issued their OPORDs. This rehearsal ensures that:*
> ● *Subordinate units' plans are* synchronized *with those of other units in the organization.*
> ● *All subordinate commanders' plans will achieve the intent of the higher commander."* **(FM 101-5)**

    FM 100-5, *Staff Organization and Operations,* provides the doctrinal framework for the CAR. **FM 71-3,** *The Mechanized and Armored Brigade,* incorporates the framework in an excellent discussion of the brigade-level Combined Arms Rehearsal. With the exception of a small paragraph, **FM 71-2** w/change 1, *The Tank and Mechanized Battalion Task Force,* is silent on the issue of rehearsals. **CALL Newsletter No. 98-5,** *Rehearsals,* Mar 98, supports my position that these principles are fully applicable to TF-level operations.

    The type of rehearsal described in FM 71-3 is the terrain model rehearsal. It is an effective technique accomplished relatively quickly and normally involving key leaders and staff. It is most often used when time and resources prohibit the full-dress or key leader rehearsal. Please note that the principles I outline for fire support integration are fully applicable to all rehearsal techniques considering procedural adjustments based on the time and rehearsal technique. Site selection and preparation will not be addressed in this article.

    Recommended CAR attendees, at a minimum, include the TF commander, TF FSO, TF XO and S3, primary and special staff and attachments such as the Engineer company commander, ADA platoon leader, Smoke platoon leader, Mortar platoon leaders, Scout platoon leader, ALO, all CO/TEAM commanders and FIST and designated personnel required by unit SOP. Unit SOP dictates the time sequencing and correlation between the brigade and TF CARs and supporting fire support and BOS rehearsals.
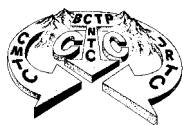
AGENDA

    Step 1. **The CAR begins with a formal** *roll call* **conducted by the XO.** Ensure everyone brings proper equipment as directed in the unit OPORD and SOP.

    Step 2. **Ensure that the XO or the S3 orients the terrain model to the actual ground, the operations overlay and the map.** Describe and orient players to critical aspects of the AO. Describe and point out the markers used on the terrain model. Replicate TF targets using standard target symbols. These target symbols indicate the type of target, (point, linear, circular) and target number. These target symbols should be laminated to allow easy updating. They must become part of the rehearsal kit managed by the TF operations NCO with assistance from the FSNCO.
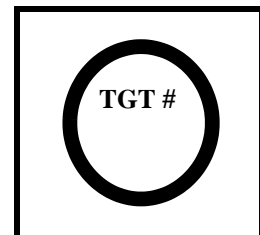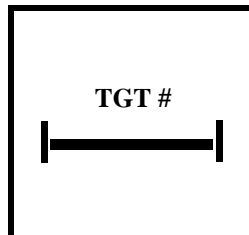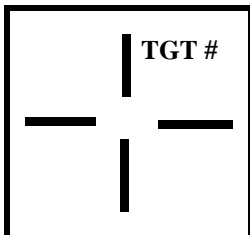
Step 3. TF XO briefs the TF timeline. Set the time interval used to start and track the rehearsal. For example, a 10-minute interval equates to one hour real time during the operation.

Step 4. Designate a recorder. Designate the Fire Support NCO or Specialist as the fire support recorder responsible for capturing all fire support issues arising during the rehearsal. The XO or S3 reviews all ground rules and reiterates specific rehearsal SOP requirements such as who walks the terrain board, how the rehearsal will be controlled, and when the special staff briefs.

Step 5. The S3 reads the mission statement, reviews the commander's intent and lays out the current friendly situation, using the terrain model. The TF FSO reviews the TF Commander's Concept for Fires, indicates the current locations of friendly fire support assets in the TF's AO and indicates ranges of various friendly weapons system. Detailed fire support discussions occur in later steps.

Step 6. The TF S2 briefs the current enemy situation, likely enemy COA and status of the R&S plan. During this step, either the S2 or TF FSO should discuss current enemy fire support assets, current enemy positions (templated or actual) and their range and influence on the upcoming operation.

Step 7. This step is the real guts of the rehearsal process. The TF commander will direct the actual start point for the rehearsal. It may begin at actions on the objective or another critical event. Regardless of the start point, the actions of the TF FSO should not be altered. The TF S3 briefs the disposition of friendly maneuver units at rehearsal start time. Utilizing the TF Scheme of Fires as depicted in the Fire Support Execution Matrix, the TF FSO begins to **"paint the fire support picture"** by phase providing a fire support overview throughout the TF AO. The TF FSO briefs these fire support specifics:
    A. **Brigade Fire Support plan in the TF AO.** This allows the TF commander to determine whether the brigade Essential Fire Support Tasks and Scheme of Fires mutually supports or conflicts with his scheme of maneuver. If he is relying on the DS artillery for obscuration smoke and suppressive fires during breach operations, he must know the brigade commander's intent for counter-fire and FASCAM during the same timeframe. If required, the TF commander must address conflicts directly to the BDE commander.
   B. **Priority Target/FPFs.** These targets should be highlighted as critical targets to the phase.
    C. **Fire Support Coordination Measures (FSCMs).** What are the FSCMs impacting on the TF AO and what are the triggers directing a change in FSCM? The brigade CFL, NFAs and ACAs are examples of FSCMs, which may have a significant impact on TF operations and require negotiation with higher headquarters.
    D. **Priority of Fires.** Priority of fires, as designated by the commander, facilitates rapid delivery of fires during critical junctures in the operation.
    E. **Fire Support Force Protection.** Where are the CFZs, and do they support the scheme of maneuver? What company team is providing security for target acquisition radar located in the TF AO?

Step 8. This is the most critical step of the rehearsal process. Every action in this step is designed to make sure that all actions on the maneuver synchronization matrix and/or DST are addressed at the proper time or event. Commanders from TF commander on down execute their responsibilities on the terrain model using appropriate commands. CO/TEAM commanders tell when they initiate fires IAW their fire plans. Using the PLOT-CR format, commanders should brief the following fire support data:
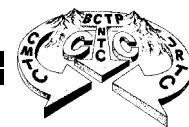
A. *Purpose.* The CO/TEAM commander briefs his target responsibilities. He must demonstrate his understanding of why he is directed to provide resources, possibly maneuver shooters, to observe and/or trigger targets in support of the TF scheme of maneuver. If he is uncomfortable with an aspect of the plan, he must immediately bring the issue to the forefront. If it cannot be immediately resolved, the fire support recorder documents it for future resolution.

B. *Location.* The CO/TEAM commanders simply recite the grid location of the target ensuring it coincides with the TF target list.

C. *Observers.* As the "executors" of the TF fire support plan, CO/TEAM commander announces which platoon and preferably the individual responsible for observing critical targets. If he is challenged with the execution of several targets during a phase, he requests guidance from the TF commander as to which is the most critical. Based on that decision, he considers positioning his FIST and/or FOs to provide "professional" observation of the target area. Maneuver shooters perform as alternate observers. The commander discusses their tasks supporting the TF observer plan. The following areas must be addressed:

      (1). OP location with visibility/equipment requirements.
      (2). Time to occupy.
      (3). Infiltration Route.
      (4). Security requirements/arrangements.
      (5). Disengagement criteria.

This information is critical to the TF commander. **If an enemy asset is so critical as to be designated as a TF target, then it must be adequately resourced with execution assets.** This brief discussion allows the TF commander to assess the observer to target ratio (minimum 2:1) and determine necessary changes.

D. *Triggers.* CO/TEAM commanders must discuss the triggering events that alert them to execute a specific target. **In some cases, the commander responsible for triggering a specific target will not be the same commander responsible for observing a target.** In this case, both commanders will brief their tasks. It is critically important that target hand-off criteria between trigger and observer are synchronized and rehearsed. Commanders can talk the event during the CAR. Detailed rehearsal must be executed at the subsequent fire support FM rehearsal conducted later in the planning timeline. The term "trigger" in this discussion should not be confused with the trigger grid determined by the FIST in determining the moving target intercept point/point to impact. This is a technical point not applicable to commander's discussion. However, immediately following the commander, CO/Team FISTs should discuss the intercept trigger during their portion of the CAR.
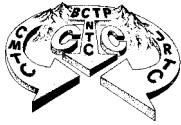
E. *Communications NET.* The CO/TEAM commander repeats the TF fire support frequency and alternate fire support frequency. **On what frequencies do maneuver shooters call for fire (CFF)? How will CFF executed on the internal company net reach the fire support channels?**

F. *Rehearsal.* The CO/TEAM commander reiterates essential fire support tasks scheduled for rehearsal at his company CAR.

Following the commander's briefing, the Company FIST should initiate CFFs on assigned targets ensuring complete understanding of the plan. The TF commander dictates the level of FIST participation.

Step 9. **The S2 continues to portray the enemy most likely COA (situational template), stressing reconnaissance routes, objectives, security force composition and location.** He must be specific. He must tie enemy actions to specific terrain or friendly unit actions. The walk-through should be an accurate portrayal of the situational template.

Step 10. **This step marks the end of Phase I.** The TF commander's intent for the phase is met. The TF fire support plan is synchronized with the scheme of maneuver. The rehearsal of each additional phase should follow the procedures listed above.

Step 11. **Since the key to a rehearsal is coordination of key events, when the need for additional coordination is required, all efforts should be made to accomplish it immediately upon the conclusion of a phase.** Results of additional fire support coordination are recorded by the fire support recorder for later input into a subsequent TF FRAGO.

Step 12. **Rehearsal of Branches and Sequels.** After the initial walkthrough of the base order, key decision points and criteria, which alter the original plan, are discussed. Assume the criteria have been met and then refight the fight until the desired end-state is achieved. Fire support tasks should follow, as close as possible, the same procedures as outlined above given the level of preparation. The TF FSO "paints the fire support picture" in the TF AO at the time the decision is made to execute the branch. Commanders brief their fire support tasks and FIST "execute' their target responsibilities. **The level of detail will depend on the level of initial planning undertaken by the staff during the initial wargame and subsequently directed in the TF OPORD.**

Step 13. **Repeat step 12 for each subsequent decision point/branch.**

**Step 14.** **Repeat step 13 until all DPs are rehearsed.**

Step 15. **Ensure all BOSs are integrated at appropriate times throughout the rehearsal process.**

Step 16. **Following the rehearsal, the TF recorder restates changes, coordination or clarifications directed by the commander.** The fire support recorder monitors this briefback ensuring all fire support issues were captured.

Step 17. **The TF commander concludes the rehearsal stressing any key points needing additional emphasis.** The TF XO addresses changes to the timeline and anticipated publication time of the resulting TF FRAGO. Commanders and staff are dismissed to continue preparation for the upcoming operation.

A BRIEF WORD ON THE FM FIRE SUPPORT REHEARSAL

The Combined Arms Rehearsal provides the setting for subordinate commanders and staff to demonstrate their knowledge and understanding of their tasks in the execution and synchronization of the TF fire support plan. The TF FM fire support rehearsal confirms whether the knowledge and understanding demonstrated by the commanders and FIST at the CAR is imparted to subordinates charged with the execution of the fire plan. **The TF commander must take ownership of this rehearsal as it provides the critical assurance that those responsible for the actual execution of the fire plan are rehearing the plan.** In an excellent article, *The Fire Support Rehearsal,* **CALL Newsletter No. 97-11,** *NTC's Fighting with Fires III,* Apr 97, CPT Samuel R. White provides guidance on the conduct of TF fire support rehearsals. The fire support rehearsal is the final validation of the integrated TF fire support plan developed during the CAR. This rehearsal provides the forum for the actual executors, the FIST, FOs, and maneuver shooters, such as the Scouts, PLT leaders and PLT Sergeants, to actually rehearse the execution of the fire plan. The TF XO/ S3 should facilitate this rehearsal. By requiring the TF XO/S3 to begin each phase of the fire support rehearsal with the TF scheme of maneuver followed by the TF FSO review of the TF scheme of fires, the TF commander ensures the fire plan and maneuver scheme remain synchronized throughout the fire support rehearsal. **Validation of the plan is now the responsibility of the creator of the maneuver plan (S3/XO), not an artillery captain (FSO).** It also provides quality control, ensuring all required participants are "up" and ready to rehearse. A properly executed fire support rehearsal complements the CAR,
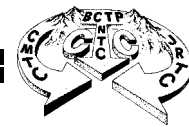
verifying the integration and synchronization of the TF scheme of maneuver and fire plan. (For more information on the fire support rehearsal, refer to CPT White's article referenced above.)

CONCLUSION

The CAR provides the TF commander with perhaps his only opportunity to listen to his commanders and staff as they rehearse an upcoming mission. It provides the TF commander an arena to pay more than a tacit handwave to fire support integration. Incorporation of these recommendations highlights the importance of fire support to the entire chain of command. Its full inclusion as an equal partner in the conduct of combat operations is vital to mission success and the prevention of future TF Tigers.✪

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